CONSTRUCTION NEWS

PERSONALS, ENGINEERING SOCIETIES, ENGINEERING SCHOOLS, READERS' WANTS, INDUSTRIAL NOTES, PUBLICATIONS.

Supplement to ENGINEERING NEWS. New York, October 27, 1904.

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PERSONAL.

Mr. G. L. Sawyer, Assistant City Engineer of Champaign, Ill., has resigned to accept a similar position in Boise City, Idaho.

Mr. John L. Hanna has resigned as Superintendent of the Franklin Water Co., of Franklin, Pa., and will engage in contracting.

Mr. S. S. Feeter has been appointed City Engineer of Little Falls, N. Y. Mr. Feeter has been acting City Engineer of that place for some time.

Mr. Richard H. Phillips, Consulting Civil Engineer, Louisiana Purchase Exposition, has opened an office for general engineering practice in Room No. 503 Security Building, St. Louis, Mo.

Mr. E. M. Greene has resigned his position as Superintendent electric light and power plant at Rappahannock, Va., to accept the position of Superintendent of the municipal electric light plant of Fredericksburg, Va.

Mr. John Betram Rice, of Lynn, Mass., and Miss Mary B. Whipple were married at the home of the bride in Keene, N. H., Oct. 12. Mr. Rice is a civil engineer in the employ of the Metropolitan Park Commission of Massachusetts.

Mr. L. C. Hammond, formerly connected with the engineering department of the New York Central & Hudson River R. R., has been appointed Assistant Engineer of the Buffalo & Susquehanna R. R., with headquarters at Belfast, N. Y.

Mr. Morris M. Green has resigned as Professor of Mechanical Engineering at the University of Colorado, to take charge of the construction of extensive additions to the works of the International Acheson Graphite Co., of Niagara Falls, N. Y.

Prof. Louis Duncan, M. Am. I. E. E., has resigned his position as head of the Electrical Engineering Department of Massachusetts Institute of Technology and will devote his time to his private consulting practice. Prof. Harry E. Clifford, Associate Professor of Theoretical Electricity, has been appointed acting head of the electrical department.

Mr. Clement F. Street, M. Am. Soc. M. E., has been appointed Commercial Engineer of the Westinghouse Electric & Manufacturing Co., to handle work in connection with steam railroads. Previous to accepting his present position, Mr. Street was Manager of the Railway Department of the Wellman-Seaver-Morgan Co., of Cleveland, O.

Lt.-Col. Smith S. Leach, Corps of Engineers, has been selected by General Mackenzie, Chief of Engineers, as successor of the late Col. A. M. Miller, in charge of the Washington, D. C., water supply system, including the establishment of the filtration plant near the Soldiers' Home, and also of river and harbor improvements in the vicinity of that city.

The engineering department of the Wheeling & Lake Erie R. R. was recently reorganized, the official list now being as follows: Consulting Engineer, W. S. Newhall, St. Louis; Engineer of Maintenance of Way, A. C. Hezlep, Cleveland, O., heretofore Engineer; Assistant Engineer Maintenance of Way, D. M. Taylor, Cleveland, O., heretofore Engineer of Construction of the Adena branch, at St. Clairsville, O. The headquarters are at 514 Electric Building, Cleveland, O.

Dr. Gilbert J. Fowler, Superintendent and Chemist to the Rivers Department of Manchester, England, has resigned that position and been appointed consulting chemist to the same body. The change has been made in order that Dr. Fowler may enter more extensively into private practice. In his former position he was connected with the notable sewage purification experiments conducted a few years ago at Manchester, and he has also been in charge of the operation of the Manchester sewage works during their change from the chemical precipitation to the septic tanks and contact beds system of treatment.

OBITUARY.

Prof. B. S. Lamphear, Instructor in the Electrical Engineering Department of Iowa State College for the past three years, died at Carthage, N. Y., recently.

John Livingston Dinwiddie Borthwick, Chief Engineer of the United States Navy (retired), died at Florence, Italy, Oct. 22 from nervous prostration. He was 64 years old.

George P. Wescott, a former Mayor of Portland, Me., died in that city recently from a stroke of paralysis. Mr. Westcott was interested in many business enterprises, principally railroads, water-works and lighting plants, in Maine and other states.

Charles Parsons, formerly President of the Midland Railway of New Jersey, died at his home in New York City Oct. 18. Mr. Parsons was interested in many railroad enterprises, having served as President of the Rome, Watertown & Ogdensburg R. R., as President of the New York & New England R. R., and as Receiver and later President of the Ogdensburg & Lake Champlain R. R. He also served for five years as President of the South Carolina & Georgia R. R.

Edward Doerr, a well known mining engineer in Mexico, died at San Antonio, Tex., Oct. 4. Mr. Doerr began his engineering work as a surveyor for the Atchison, Topeka & Santa Fe Ry. He went to Mexico in 1888, and in 1890 entered the employ of the Guggenheim Smelting Co. as Mine Superintendent. He left the employ of this company May 1, 1904, after having risen to the position of Manager for Mexico, and engaged in consulting practice, making his headquarters at Mexico City.

ENGINEERING SOCIETIES.

COMING MEETINGS.

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.
Nov. 17 and 18, 1904. Annual meeting at New York, N. Y. Secy., Wm. J. Baxter, 12 West 31st St., New York.

ENGINE BUILDERS' ASSOCIATION OF THE UNITED STATES.
Dec. 2, 3, 1904. Annual meeting at New York, N. Y. Secy., D. Fleming, Harrisburg, Pa.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
Dec. 6, 1904. Annual meeting at New York City. Secy., F. R. Hutton, 12 West 31st St., New York.

AMERICAN INSTITUTE OF ARCHITECTS.
Dec. 15 to 17, 1904. Annual meeting at Washington, D. C. Secy., Glenn Brown, Washington, D. C.

UNDERWRITERS' NATIONAL ELECTRIC ASSOCIATION.—The Electrical Committee of this association will hold its annual meeting at the rooms of the New York Board of Fire Underwriters, 32 Nassau St., New York, N. Y., on Wednesday, Dec. 7, 1904, at 10 a. m. The meeting will be open to all interested in the matter of rules for the installation of electric wiring and apparatus. The meeting will consider reports of sub-committees and all suggestions for changes in the National Electrical Code, but such suggestions must be in the hands of the secretary by Nov. 5. Secy., C. M. Goddard, 55 Kilby St., Boston.

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.—The program for the annual meeting, whose date and place are announced above, includes the following technical papers: "Simple Methods in Warship Design a Necessity," by Mr. G. W. Dickie; "The Semi-Globular Naval Battery," by Mr. A. P. Stokes; "The Sea-Going Battleship," by Com. Wm. Hoogaard; "Some Further Notes on the Performance of the Torpedo Boats of the United States Navy at Sea," by Lt.-Com. L. H. Chandler; "The Position of the Center of Lateral Resistance," by Mr. L. E. Bertin; "Some Recent Experiments at the U. S. Model Basin," by Mr. D. W. Taylor; "Coaling of Warships at Sea," by Mr. Spencer Miller; "Time Allowance for Steam Yacht Races," by Mr. G. W. Melville; "The Rules of Lloyd's Register for Building Yachts to Class," by Mr. Geo. Stanbury; "The Shipping and Shipbuilding of Puget Sound," by Mr. F. W. Hibbs; "Maintenance of Machinery in Merchant Ships," by Mr. R. Haig; "High Speed Gasoline Launches," by Mr. C. H. Crane; "Speed and Power of Recent Motor Boats," by Mr. A. A. Packard; "Recent Launching Practice of the Atlantic Coast," by Mr. R. H. M. Robinson; "Recent Launching Practice of the Pacific Coast," by Mr. E. P. Lesley.

The meeting will begin at 10 a. m. of Thursday, Nov. 17, 1904, and will be held at the house of the American Society of Mechanical Engineers, 12 West 31st St., New York. The sessions of the meeting will continue through Thursday and Friday. A banquet at 7 p. m. of Friday, Nov. 18, will close the meeting. Secy., W. J. Baxter.

WESTERN RAILWAY CLUB.—At the meeting held at the Auditorium Hotel, Chicago, on Oct. 18, Mr. A. R. Raymer, Assistant Chief Engineer of the Pittsburg & Lake Erie Ry., read a paper describing a system of changing the water in locomotive boilers without cooling the boiler. The apparatus is installed in the roundhouse, and the blow-off cock is connected up to a discharge pipe while hot water is fed through another pipe. In the discussion several speakers referred to the evil effects of cooling off boilers when the water is blown out in the usual way. Mr. Max Wickhorst (C., B. & Q. Ry.) thought that with such a system water could be blown out more frequently and without changing all the water each time. A switch engine using treated water only has been run for six months without washing out the boiler. Mr. G. M. Davidson (C. & N. W. Ry.) said that where treated water is used, engine failures have been reduced 80%, while the tonnage has been increased 6¼% and the boiler repair force at the roundhouse has been reduced 56%. Mr. C. A. Seley (C., R. I. & P. Ry.) thought the new system would be a great improvement in roundhouse facilities and result in great economies in boiler service. Mr. Raymer stated that engines using treated water and being blown off by his system had the boilers washed out only about every 45 days, with a very small amount of sludge or scale.

A paper on "Compressed Air and Its Application in Mechanical Lines," by Mr. W. O. Duntley, of the Chicago Pneumatic Tool Co., was read by the secretary.

IRON AND STEEL INSTITUTE OF GREAT BRITAIN.—This society has held its autumn meeting during the present week in New York City. Nearly 200 members of the society arrived at New York on Oct. 22 and 23, many of them coming on the "Celtic," which sailed from Liverpool Oct. 14. For their reception and entertainment in the United States an American reception committee was organized some time ago, with Mr. John Fritz as its President, and the executive responsibility in the hands of Messrs. Chas. Kirchhoff, Robert E. Jennings and Theodore Dwight. Separate committees were formed to have charge of the entertainment of the visitors in the several cities of New York, Philadelphia, Washington, Pittsburg, Chicago, Cleveland and Buffalo.

Monday was devoted to excursions to visit a number of different points of interest in and about New York City. In the evening the visitors and their American hosts assembled at Sherry's, where speeches of welcome were made by Mr. Chas. V. Fornes, Acting Mayor of New York City; the venerable John Fritz, on behalf of the American committee of reception, and Mr. James Gayley, President of the American Institute of Mining Engineers.

Response to these addresses was made by Mr. Andrew Carnegie, the President of the Iron and Steel Institute. He quoted from the address made under similar circumstances by Sir James Kitson, who was President of the Institute when it visited this country 14 years ago, to show the state of the American iron and steel industry at that date. In 1890 for the first time the United States surpassed Great Britain in pig iron production. Since that time the growth has been such that pig iron production is now double what it was in 1890. The growth in Bessemer production has been still greater; and the most amazing fact in the whole realm of industry, said Mr. Carnegie, is that the production of open hearth steel has increased 11-fold since 1890.

Referring to the rivalry between different nations for foreign markets, he said the real question of the future was not where markets should be found for the world's product of iron and steel, but where should iron ore deposits be found sufficient to supply the needs of the world.

Sir James Kitson, Past-President of the Institute, then presented to Mr. Carnegie the Bessemer gold medal, annually awarded to some distinguished metallurgist or engineer for noteworthy services rendered to the iron or steel industry. He reviewed the work done by Mr. Carnegie in exploiting the inventions of various English engineers and to the generous arrangements made by him with the inventors. The work of the organizer and business man, he said, is as necessary a part of the industry as the work of the engineer and the chemist.

In accepting the medal Mr. Carnegie referred to a former address which he had made when he expressed the desire to have as his epitaph, "Here lies a man who knew how to get around him men cleverer than himself." He said he knew little of the details of the machinery which he employed, but felt that he did know well the human machine and how to handle it.

After the formal addresses a reception and dancing took place.

On Tuesday the visitors spent the day on an excursion up the Hudson River to West Point and return in the

steamer "Monmouth," of the Central R. R. of New Jersey. Wednesday was devoted to the reading and discussion of papers, with a banquet in the evening at the Waldorf.

The itinerary for the excursion of the Institute provides for spending Thursday and Friday at Philadelphia, and Saturday and Sunday (Oct. 29 and 30) at Washington. Pittsburg will be visited on Tuesday and Wednesday, and on Thursday afternoon the visitors will depart for Cleveland, where they will be entertained on Friday, Nov. 4. On Saturday afternoon the party will go to Buffalo, where Sunday will be spent, and on Monday Niagara Falls will be visited. Tuesday will be spent in traveling from Buffalo to New York, and most of the party will probably return by the steamer sailing on Wednesday, Nov. 9. Some, however, may stop over at Albany and Schenectady, and a side trip to the St. Louis Exhibition has been arranged for.

AMERICAN SOCIETY OF CIVIL ENGINEERS.—The first regular meeting of the season, held on Oct. 19 at the society house, 220 West 57th St., New York, was unusually well attended. Some 200 persons were present. This was due partly to the fact of its being the first meeting, and partly to the wide interest of the subject of discussion. This latter was a paper by Mr. C. C. Schneider, entitled "Specifications for the Structural Steelwork of Buildings." This paper gave a complete specification for the steel framework of city buildings, together with some discussion of several special points of the specification. Among these are: The provision of a scale of concentrated loads for computing floors, alternatively with the distributed loading; an unusually low scale of distributed loads for floors; the requirement that foundations shall be uniformly proportioned with reference to their dead loads; the requirement that steel framework must be designed as an independent structure during erection, and the use of a single grade of structural steel, with tensile limits of 55,000 to 65,000 lbs. per sq. in.

The discussion of the paper was quite animated. Half a dozen written discussions were read by the secretary. Much of the discussion dealt with points of detail; another large part, however, dealt with live loads for floors, one of the author's points of innovation.

Mr. W. B. W. Howe (in writing) criticized the use in the specification of the Engineering News formula for safe bearing power of piles. In his opinion no formula can give reliable or workable results, and he would base all pile loading on the result of loading test piles.

Mr. Charles Worthington (in writing) claimed that the value of walls in giving lateral strength to a building should receive due consideration in the design. He also criticized the clauses governing riveting, because nothing is said in regard to the desirability of gravity grouping. As to column formulas, Mr. Worthington prefers to use a flat stress of 12,500 lbs. per sq. in. for all values of $l \div r$ below 60.

Mr. J. R. Worcester (in writing) expressed the sentiment that a great deal of metal is being wasted in steel building framework as designed at present; yet he would not go as far as does the author in reducing the live loads. Mr. Worcester referred to the experiments of L. J. Johnson and C. M. Spofford, published in Engineering News, which showed much higher loads from crowds than are usually specified. He thinks, however, that 50 lbs. per sq. ft. is high enough for floors of dwellings, hotels, etc. The reduction of live loads in designing columns should not, however, he believes, apply to warehouses. The wind pressure of 30 lbs. per sq. ft., given in the author's specification, is too high for city buildings. The column formula specified is undesirable; the limiting length should be $l \div r = 192$, rather than 125 as specified, and the unit stress should vary from 13,000 lbs. down, in a series of steps. It is curious, also, that the author uses the Gordon formula for wooden columns, while using a straight line formula for steel. The omission of a tensile stress for cast-iron is noted; for the design of column bases this stress is required.

Prof. L. J. Johnson (in writing) referred to his experiments on the weight of crowds, which experiments are corroborated by Stoney, Kernot and Spofford. While loads of 150 lbs. per sq. ft. are rare, 80 to 100 lbs. occurs frequently and 120 lbs. is not rare. Assembly and ball rooms should be figured for a floor load of 150 lbs. per sq. ft., while drill halls and political meeting places may require an additional impact allowance.

Mr. H. B. Seaman stated that he does not believe in these high loadings, but thinks that, except for highway bridges, too high loads are often used. A formula for allowable stress in members subject to reversal of stress should be included in the specification. The requirement that pneumatic riveters shall be used is good, but oil heating furnaces should also be specified; the experience with these on the New York Subway work has been highly satisfactory.

Mr. J. H. O'Brien considered the concentrated floor loads specified by the author too liberal. He claimed also that the higher unit stress allowed for combined wind and load stresses should not be so applied, but should be used for the wind stresses only.

Mr. Augustus Smith noted that the New York Building Code has its requirement for wind pressure so framed that it does not apply to pier sheds. The wind pressure clause in the author's specification avoids this error; it is commendable not only for this, but also because it insists that wind bracing must be made part of every steel frame. He does not agree with the author in his reduction of live loads, especially for office buildings, where economizing in the metal frame is most inadvisable. He would recommend 75 to 80 lbs. for assemblies, office buildings, etc., while in dwellings a lower loading may be used. In the matter of wind pressure he would prefer to change the specified pressure in order to use the same unit stress throughout. Mr. Smith further criticized the pile loading clause, as not providing for steam hammers, and made other minor criticisms.

Mr. H. W. Brinckerhoff claimed that cast-iron columns have a certain field of usefulness in building construction, but that round columns should be allowed a higher loading than square columns, because of the more serious effects of core shifting in the latter. He then illustrated the importance of designing foundations according to actual dead load by the description of the New York Steam Co.'s power plant and the settlement since observed there.

Mr. V. H. Hewes cited the case of a loft building in which a printer occupied the top floor, where the working of the press at extra speed had caused dangerous swaying of the structure. The building contained no bracing in the framework, and with such bracing would have been stiff enough to resist the stresses due to the press. The case illustrates the fact that all conditions which may affect the structure cannot be foreseen in the design, so that conservative stresses and methods should be employed.

Mr. E. W. Stern spoke in favor of higher floor loadings than those specified by the author; also for sidewalks a load of at least 300 lbs. per sq. ft. should be used, since paving blocks or other heavy material may be piled upon them several feet deep. He would figure on the walls taking some of the wind load, rather than providing bracing for the entire wind. A specification for the conduct of erection should also be given, as parts of buildings are very frequently dangerously overstressed in this period. Cement bags are piled sometimes to 400 lbs. per sq. ft., etc. Mr. Stern also spoke in favor of the cast-iron column for certain uses, but he believes that the stresses allowed in cast columns by the New York Building Code should be reduced by at least one-third.

The paper was also discussed by Messrs. F. T. Llewellyn, H. P. McDonald, F. Wilcox, G. H. Blakely, J. F. O'Rourke and O. E. Hovey.

ENGINEERING SCHOOLS.

MICHIGAN COLLEGE OF MINES.—The following appointments have been made to the teaching force of the Michigan College of Mines, Houghton, Michigan: Arthur Alexander Koch, Ph. D., University of Basel, Instructor in Chemistry; Charles Franklin Bowen, M. S., University of Wisconsin, and Eugene Thomas Hancock, B. S., University of Wisconsin, Instructors in Geology and Mineralogy; Charles Hamilton Hoyt, C. E., Thayer College of Engineering, Instructor in Civil and Mining Engineering; Durward Copeland, B. S., Massachusetts Institute of Technology, Instructor in Metallurgy and Ore Dressing.

CIVIL SERVICE EXAMINATIONS FOR TECHNICAL POSITIONS.

CONSTRUCTING ENGINEER.—The United States Civil Service Commission, Washington, D. C., from whom further information can be obtained, will hold an examination Dec. 7-8, at various places throughout the country, to secure eligibles to fill a vacancy in the position of constructing engineer in the United States Powder Depot, Dover, N. J., at $200 per month, and other similar vacancies as they may occur. The position to be filled requires an appointee who has had necessary technical training and also practical experience as a constructing engineer.

CIVIL ENGINEER AND SUPERINTENDENT OF CONSTRUCTION.—The United States Civil Service Commission, Washington, D. C., from whom further information can be obtained, will hold an examination Nov. 29-30, at various places throughout the country, to secure eligibles to fill vacancies in the position of civil engineer and superintendent of construction, at $1,500 per year in the Quartermaster's Department at Large, and other similar vacancies as they may occur in that department. Appointees in this position must have had, in addition to a good scientific education, some practical experience in the branches of civil engineering, covering construction of roads, laying out of grounds, sewer and water lines, concrete walks, etc., and especially in building construction.

CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.), may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

Bids close	Work.	Place.	On file.	See issue.
Oct.				
*27	Tunnel	Boston, Mass.	P. & S.	10-13
*28	Dredging	New London, Conn.	S.	10-13
29	Wharf, etc.	Washington, D. C.	S.	6-13
29	Pumping plant	Washington, D. C.	S.	10-13
Nov.				
*2	Dredging	Washington, D. C.	S.	10-13
3	Coal handling pl't.	N. Orl'ns, La.	S.	10-20
*4	Harbor work	Chicago, Ill.	S.	10-13
12	Bridge, steel	Calgary, Alta.	S.	10-20
12	Timber piers	Washington, D. C.	S.	10-27
12	Pile & timber wharf	Wash., D. C.	S.	10-27
19	Retaining wall	Wash., D. C.	S.	10-27
Dec.				
*1	Bridge	Manila, P. I.	P., S. & B. S.	7-28

*Work advertised in Engineering News.

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News a note that the plans are filed with us will be added to the advertisement without cost.

LIST OF CONTRACTS PENDING.

Bids close.	Work. Place.	See issue.
	LIGHT, HEAT AND POWER PLANTS.	
Oct. 27.	Gas plant, Covina, Cal.	Oct. 20
Oct. 31.	Electric lighting, Leon, Mexico	Oct. 6
Nov. 1.	Electric power plant, Searcy, Ark.	[illegible] 13
Nov. 1.	Gas holder, Richmond, Va.	Oct. 20
Nov. 1.	Electric lighting, Harrisburg, Pa.	Oct. 20
Nov. 3.	Light franchise, Catlettsburg, Ky.	Oct. 20
Nov. 5.	Electric lighting, Warren, Pa.	Oct. 27
Dec. 6.	Electric lights, plant, etc., Dallas, Tex.	Oct. 27
	Advertised, Eng. News, Oct. 27 and Nov. 3.	
	BRIDGES.	
Oct. 27.	Superstructure, Zanesville, O.	Oct. 13
Oct. 27.	Bridge, steel, Peru, Ind.	Oct. 6
Oct. 28.	Bridges, Grand Rapids, Minn.	Oct. 27
Oct. 29.	Bridge, Cincinnati, O.	Oct. 13
Oct. 30.	Bridge, steel, Crookston, Minn.	Sept. 22
Nov. 1.	Bridge, Baltimore, Md.	Oct. 13
Nov. 1.	Bridge, iron, Towson, Md.	Oct. 20
	Advertised, Eng. News, Oct. 20 and 27.	
Nov. 1.	Bridge, approach, Covington, Ind.	Oct. 27
Nov. 2.	Bridges, Astoria, Ore.	Oct. 27
Nov. 4.	Bridges, Pawnee City, Neb.	Oct. 27
Nov. 4.	Bridge, New Orleans, La.	Sept. 15
	Advertised, Eng. News, Sept. 15 to Oct. 7.	
Nov. 5.	Bridge, abutments, Fremont, O.	Oct. 27
Nov. 7.	Bridges, Redwood City, Cal.	Oct. 27
Nov. 7.	Bridges, Delphi, Ind.	Oct. 27
Nov. 7.	Bridge, Rome, Ga.	Oct. 27
Nov. 7.	Bridge, Watsonville, Cal.	Oct. 27
Nov. 7.	Bridges, Richmond, Ind.	Oct. 13
Nov. 7.	Bridge, Noblesville, Ind.	Oct. 20
Nov. 8.	Bridge substructure, Ottawa, Ont.	Oct. 27
Nov. 8.	Bridge, steel, Statenville, Ga.	Oct. 27
Nov. 9.	Bridges, steel, Mt. Vernon, Ind.	Oct. 27
Nov. 9.	Bridge, steel, Stockton, Cal.	Oct. 20
Nov. 9.	Bridges, steel, Cleveland, O.	Oct. 20
Nov. 11.	Bridge, steel, Little Falls, Minn.	Oct. 27
Nov. 12.	Bridge, Calgary, Alta.	Oct. 20
	Advertised, Eng. News, Oct. 20 and 27.	
Nov. 15.	Bridges, steel, Monroe, La.	Oct. 20
Nov. 15.	Bridges, Tipton, Ia.	Oct. 13
Nov. 15.	Bridge, Winnipeg, Man.	Oct. 6
Nov. 16.	Bridges, Fairbury, Neb.	Oct. 20
Nov. 17.	Bridges, steel, Evansville, Ind.	Oct. 27
Dec. 1.	Bridge superstructure, Manila, P. I.	July 28
	Advertised, Eng. News, July 28 to Dec. 1.	
Dec. 5.	Bridge, Dillon, Mont.	Oct. 20
	BUILDINGS.	
Oct. 27.	Post office, Greeneville, Tenn.	Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.	
Oct. 27.	Cut stone, Washington, D. C.	Sept. 29
	Advertised, Eng. News, Sept. 29 to Oct. 20.	
Oct. 28.	Building, Glen Gardner, N. J.	Oct. 20
Oct. 29.	Naval building, New York, N. Y.	Oct. 13
Oct. 29.	Building, Athens, Ga.	Oct. 27
Oct. 31.	Public bath building, New York, N. Y.	Oct. 27
Nov. 1.	Jail work, Virginia, Minn.	Oct. 27
Nov. 1.	Wiring systems, Seattle, Wash.	Oct. 27
Nov. 1.	School plans, etc., Birmingham, Ala.	Sept. 15
Nov. 1.	Post office, Evanston, Ill.	Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.	
Nov. 2.	Post office, Oak Park, Ill.	Oct. 6
Nov. 2.	Ventilating apparatus, Washington, D. C.	Sept. 8
	Advertised, Eng. News, Sept. 8 and 15.	
Nov. 2.	Gas fixtures, Bridgeport, Conn.	Oct. 27
Nov. 3.	Steam heating, New York, N. Y.	Oct. 27
Nov. 3.	Electric wiring, Athens, Ga.	Oct. 13
	Advertised, Eng. News, Oct. 13 and 20.	
Nov. 7.	Court house, Dothan, Ala.	Oct. 13
Nov. 7.	Ventilating apparatus, Washington, D. C.	Sept. 15
Nov. 7.	Post office, Lawrence, Kan.	Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.	
Nov. 8.	Hospital, Lancaster, O.	Oct. 20
Nov. 9.	Post office, Flint, Mich.	Oct. 6
Nov. 9.	Building repairs, New York, N. Y.	Oct. 27
Nov. 10.	Building, Omaha, Neb.	Oct. 27
Nov. 10.	Laboratory buildings, Washington, D. C.	Sept. 22
	Advertised, Eng. News, Sept. 22 to Nov. 3.	
Nov. 10.	Removing buildings, St. Louis, Mo.	Oct. 20
	Advertised, Eng. News, Oct. 20.	
Nov. 14.	Post office, Adrian, Mich.	Oct. 13
Nov. 14.	City hall annex, New Orleans, La.	Oct. 20
Nov. 14.	Freight shed, Stockton, Cal.	Oct. 27
Nov. 15.	Steam heating, Kirksville, Mo.	Oct. 20
Nov. 16.	Hospital, San Francisco, Cal.	Oct. 27
Nov. 17.	Steam heating, Athens, Ga.	Oct. 27
Nov. 17.	Army building, Ft. Meade, S. Dak.	Oct. 20
	Advertised, Eng. News, Oct. 20 to Nov. 10.	
Nov. 17.	Hospital buildings, Schenectady, N. Y.	Oct. 6
Nov. 21.	Post office, Ottawa, Ill.	Oct. 20
Nov. 22.	Post office, Georgetown, S. C.	Oct. 20
	WATER SUPPLY AND IRRIGATION.	
Oct. 27.	Pumps and motors, De Pere, Wis.	Oct. 20
Oct. 27.	Water mains, etc., Lakeland, Fla.	Oct. 20
	Advertised, Eng. News, Oct. 20.	
Oct. 28.	Water-works, Knoxville, Tenn.	Oct. 20
	Advertised, Eng. News, Oct. 20 and 27.	
Oct. 28.	Water distributing system, Prescott, Ariz.	Sept. 29
	Advertised, Eng. News, Sept. 29 to Oct. 27.	
Oct. 28.	Water-works, Eveleth, Minn.	Oct. 27
Oct. 29.	Pumping engines, etc., Kansas City, Mo.	Oct. 13
	Advertised, Eng. News, Oct. 13 and 20.	
Oct. 29.	Pumping plant, etc., Washington, D. C.	Oct. 13
Oct. 31.	Lead pipe, etc., Victoria, B. C.	Sept. 29
Oct. 31.	Pipe, etc., Portland, Ore.	Oct. 27
Nov. 1.	Water main, Beresford, S. Dak.	Oct. 27
Nov. 1.	Water-works, etc., Summerside, P. E. I.	Aug. 25
Nov. 1.	Water mains, North Milwaukee, Wis.	Oct. 20
	Advertised, Eng. News, Oct. 20 and 27.	
Nov. 2.	Pipe, condensers, New York, N. Y.	Oct. 27
Nov. 7.	Tank and tower, Waterman, Ill.	Oct. 20
	Advertised, Eng. News, Oct. 20.	
Nov. 9.	Pumping machinery, New Orleans, La.	Sept. 1
	Advertised, Eng. News, Sept. 1 to Nov. 10.	
Nov. 9.	Water-works, Mountain View, Cal.	Oct. 27
Nov. 15.	Water system, Ashland, Wis.	Oct. 27
Nov. 16.	Reservoir, etc., Fort Wright, Wash.	Oct. 27
Nov. 17.	Pumping engines, Chicago, Ill.	Sept. 22
	Advertised, Eng. News, Sept. 22 to Nov. 17.	

Nov. 23. Hydrants, New York, N. Y. .... Sept. 29

No date. Well, Central Valley, N. Y. .... Oct. 13

Advertised, Eng. News, Oct. 13.

SEWERAGE.

Oct. 27. Sewers, Kansas City, Mo. .... Oct. 27

Oct. 28. Sewer, Milwaukee, Wis. .... Oct. 27

Oct. 28. Sewer, Findlay, O. .... Oct. 20

Oct. 31. Sewers, Lima, O. .... Oct. 27

Nov. 1. Sewerage, Summerside, P. E. I. .... Aug. 25

Nov. 2. Sewers, Brooklyn, N. Y. .... Oct. 27

Nov. 4. Sewer work, Jacksonville, Fla. .... Oct. 27

Nov. 4. Sewers, Cincinnati, O. .... Oct. 27

Nov. 4. Sewers, Omaha, Neb. .... Oct. 27

Nov. 4. Sewer pipe, Salem, Mass. .... Oct. 20

Advertised, Eng. News, Oct. 20 and 27.

Nov. 5. Sewer, Watertown, Wis. .... Oct. 27

Nov. 7. Sewers, McKees Rocks, Pa. .... Oct. 27

Nov. 7. Sewer, Perth Amboy, N. J. .... Oct. 27

Dec. 2. Sewers, Omaha, Neb. .... Oct. 13

STREETS AND ROADS.

Oct. 27. Paving, Shreveport, La. .... Oct. 20

Oct. 28. Roads, etc., San Francisco, Cal. .... Oct. 6

Oct. 28. Paving, Ottumwa, Ia. .... Oct. 27

Oct. 28. Road, Litchfield, Conn. .... Oct. 27

Oct. 28. Paving, asphalt, Troy, N. Y. .... Oct. 27

Oct. 29. Road, Enfield, N. H. .... Oct. 27

Oct. 31. Sidewalks, concrete, New Iberia, La. .. Oct. 27

Oct. 31. Macadamizing, Spencer, Ind. .... Oct. 27

Oct. 31. Paving, asphalt, New York, N. J. .... Oct. 27

Oct. 31. Paving, asphalt, Long Island City, N. Y. .. Oct. 27

Nov. 1. Sidewalks, cement, Dayton, O. .... Oct. 27

Nov. 1. Grading, Youngstown, O. .... Oct. 27

Nov. 1. Roads, Pomfret, Conn. .... Oct. 20

Nov. 2. Paving, asphalt, Brooklyn, N. Y. .... Oct. 27

Nov. 3. Paving, Montooth, Pa. .... Oct. 27

Nov. 3. Paving, brick, Cleveland, O. .... Oct. 27

Nov. 3. Roadway, etc., Brooklyn, N. Y. .... Oct. 27

Nov. 4. Paving, asphalt, Hamilton, O. .... Oct. 27

Nov. 7. Bridge, Fargo, N. Dak. .... Oct. 27

Nov. 7. Paving, vitrified brick, Des Moines, Ia. .. Oct. 27

Nov. 7. Paving, brick, Webb City, Mo. .... Oct. 27

Advertised, Eng. News, Oct. 27.

Nov. 7. Paving, Atlanta, Ga. .... Oct. 27

Nov. 7. Roads, English, Ind. .... Oct. 20

Nov. 8. Grading, Washington, D. C. .... Oct. 20

Nov. 10. Road, Durango, Colo. .... Oct. 20

Nov. 10. Road, Brazil, Ind. .... Oct. 27

Nov. 12. Road, Bakersfield, Cal. .... Oct. 20

Nov. 14. Street, Indianapolis, Ind. .... Oct. 27

Nov. 15. Road, gravel, Toms River, N. J. .... Oct. 20

No date. Paving, brick, Morris, Ill. .... July 21

Advertised, Eng. News, July 21 to Oct. 13.

No date. Grading, Cincinnati, O. .... Oct. 27

Advertised, Eng. News, Oct. 27.

MISCELLANEOUS CONTRACTS.

Oct. 27. Fire engine, fire hose, New York, N. Y. .. Oct. 20

Oct. 27. Tunnel, Boston, Mass. .... Oct. 13

Advertised, Eng. News, Oct. 13 and 20.

Oct. 28. Dredging, New London, Conn. .... Oct. 13

Advertised, Eng. News, Oct. 13 to Nov. 3.

Oct. 28. Boiler, Reading, Pa. .... Oct. 13

Advertised, Eng. News, Oct. 13 and 20.

Oct. 28. Electrical machinery, England .... Oct. 20

Oct. 29. Wharf, etc., Washington, D. C. .... Oct. 13

Oct. 29. Ditch, Warsaw, Ind. .... Oct. 27

Oct. 31. Tile drain, Pocahontas, Ia. .... Oct. 27

Oct. 31. Power boat, New Orleans, La. .... Oct. 27

Oct. 31. Belting, iron pipe, etc., Philippines .... Oct. 27

Nov. 1. Fire hose, New York, N. Y. .... Oct. 27

Nov. 1. Lamps, hoisting engine, etc., Wash., D. C. Oct. 20

Nov. 2. Dredging, Washington, D. C. .... Oct. 13

Advertised, Eng. News, Oct. 13 and 20.

Nov. 3. Boilers, etc., New York, N. Y. .... Oct. 20

Nov. 4. Harbor work, Chicago, Ill. .... Oct. 6

Advertised, Eng. News, Oct. 6 to Nov. 3.

Nov. 7. Pipe scow, Philadelphia, Pa. .... Oct. 13

Advertised Engineering News, Oct. 13 to Nov. 10.

Nov. 7. Air compressor, Montgomery, Ala. .... Oct. 13

Advertised, Eng. News, Oct. 13 and 20.

Nov. 7. Fire hose, etc., Philippines .... Oct. 27

Nov. 7. Night soil removal, New York, N. Y. .. Oct. 27

Nov. 8. Machine tools, Washington, D. C. .... Oct. 13

Nov. 8. Electric blowers, wire, etc., Wash, D. C. .. Oct. 20

Nov. 9. Drainage and levee work, New Madrid, Mo. Oct. 20

Nov. 9. Wharf, Deschabault, Que. .... Oct. 27

Nov. 9. Tile drain, Mt Vernon, Ind. .... Oct. 27

Nov. 10. Docks, moles and forts, Chili .... Aug. 18

Nov. 11. Pneumatic tubes, Montreal, Que. .... Oct. 27

Nov. 12. Fire escapes, Hudson, N. Y. .... Oct. 27

Advertised, Eng. News, Oct. 27.

Nov. 12. Timber piers, Washington, D. C. .... Oct. 27

Nov. 12. Pile and timber wharf, Washington, D. C. Oct. 27

Nov. 14. Fire hose, Glassport, Pa. .... Oct. 27

Nov. 14. Ditch, etc., Bloomfield, Mo. .... Oct. 6

Nov. 15. Drain tile, Sibley, Ia. .... Oct. 27

Nov. 16. Wall lockers, Prescott, Ariz. .... Oct. 27

Advertised, Eng. News, Oct. 27 to Nov. 17.

Nov. 19. Retaining wall, Washington, D. C. .... Oct. 27

Nov. 23. Telegraph material, Australia .... Oct. 6

Nov. 26. Steel vessel, Detroit, Mich. .... Oct. 20

Nov. 30. Timber, drainage, New Orleans, La. .... Sept. 29

Advertised, Eng. News, Sept. 29 to Dec. 1.

Dec. 3. Coal handling plant, New Orleans, La. .. Oct. 20

Dec. 15. Battleship, Washington, D. C. .... Sept. 29

Dec. 25. Coal unloading apparatus, Belgium .... Oct. 20

Mar. 31. Electric railway, China .... Oct. 20

Advertised, Eng. News, Oct. 20 to Dec. 29.

RAILWAYS.

ATLANTA, KNOXVILLE & NORTHERN.—A Birmingham, Ala., press report states that Wright, Williams & Wadley, of Birmingham, have been awarded the contract to build the 88-mile extension from Wetmore, Tenn., to Cartersville, Ga. Work is to be completed in ten months. R. Montfort is Ch. Engr., Louisville, Ky.

BUCKHANNON & NORTHERN.—J. W. Patterson, Vice-Pres. and Ch. Engr. Wabash-Pittsburg Terminal Ry., has stated that work will be resumed in about a month on this road in West Virginia, according to press report. This road belongs to the Wabash system.

CALIFORNIA.—San Diego Council has granted a franchise to H. T. Richards to build a railroad through this city east into Arizona. One of the terms of the ordinance is that actual construction must begin within six months and road completed by Jan. 1, 1907. Survey is said to have been started.

DENVER, ENID & GULF.—John Overholt, Gen. Supt., Enid, Okla., is quoted as saying that work of track-laying on northern extension of this line will begin about Nov. 10. W. D. Gerber is Acting Ch. Engr., Enid. Edward L. Peckham, Vice-Pres. and Gen. Mgr., Enid, is authority for the statement that grading has just been commenced on the first 14 miles of the extension from Enid to Kiowa, Kan., a distance of 60 miles. Oklahoma Construction Co. has this contract.

DETROIT SOUTHERN.—Extension will be built from Napoleon or Malinto, O., to Adrian, Mich., about 30 miles. Main shops of this company are to be located at Springfield, O., New equipment will be needed that will cost $75,000, it is said. Company is also contemplating the erection of a small division machine shop, roundhouse and car shops at Napoleon, O. Details for this work are well under way and it is expected that the construction will be started within 30 days. Geo. Crocker, Springfield, O., is Ch. Engr.

DULUTH, SOUTH SHORE & ATLANTIC.—The Minneapolis "Journal" states that this line, "one of the Canadian Pacific group of roads, is to be extended from Duluth westward to Thief River Falls, Minn., and that the plan is ultimately to extend on west through North Dakota at a distance midway between the Great Northern and the international boundary." H. J. Payne, Marquette, Mich., is Ch. Engr.

ERIE.—Directors have under consideration plans for the electrification of the suburban service throughout New Jersey. This would include about 51 miles of road, with central power station located at Paterson, N. J. Plans are also being considered for other improvements providing for rebuilding the Hoboken terminal at cost of $10,000,000 and for a low grade freight line from Chicago to tidewater. Surveys for this project have reached definite shape, it is said. Five sections of new road will be built through New Jersey, New York and eastern Ohio. The new line will be built as single track, with ample passing sidings. The tunnels and bridges will have provision for a second track. Total cost of all improvements is estimated at $30,000,000.

IMBODEN & ODELL.—Track-laying will begin soon, it is said, on this road. It is graded for ten miles up Blue Creek now. Line will run from Charleston, W. Va., to Belva, 30 miles. C. P. Peyton, Ch. Engr., is located at Charleston.

LONG ISLAND.—Large sections of land between Jamaica (L. I.), N. Y., and Queens, on the Montauk Division of this road, have lately been acquired in view of establishing a great terminal yard, it is rumored.

MISSOURI, OKLAHOMA & GULF.—W. P. De War, Vice-Pres., in reported interview, stated recently that this road will be built at once. It will parallel the Missouri, Kansas & Texas Ry., the greater part of the distance through Indian Territory. The new line will be built from Joplin, Mo., to a crossing on the Canadian River within a few miles of the M., K. & T. A branch will be built from Henryetta to Shawnee, Ind. T. Company proposes to use leased tracks from Joplin into Kansas City until its own tracks can be built. Line will be extended south to the Texas Pacific at Whitesboro, Tex.

MORGANTOWN & KENGWOOD.—Talbott Bros., of Fairmont, W. Va., have been awarded contract for a 2½-mile extension from Bretz to Reedsville, W. Va. The line will be extended to Rowlesburg, possibly next year.

NEW YORK.—Railroad may be built from Silver Springs to Johnston. R. W. Holliday, of Eureka, in reported interview, states that the Wilson Cypress Co. will be interested in plan.

NEW YORK, CHICAGO & ST. LOUIS.—This company is said to have under consideration the electrification of its entire line when a similar change of motive power has been made on the West Shore Ry. and the New York Central & Hudson River Ry. systems.

NEW YORK, NEW HAVEN & HARTFORD.—C. S. Mellen, Pres., has announced that the Air Line Division, New Haven-Willimantic branch, will be double-tracked. This work probably will cost over $1,000,000. It is also proposed to double-track the Valley Division from Hartford to Middletown.

New Haven, Conn., Board of Aldermen will consider petition of Chamber of Commerce that plan proposed by Charles S. Mellen, Pres. N. Y., N. H. & H., for the elevation of the tracks through New Haven in preference to plans that have been under consideration calling for widening of the "cut" through which the tracks run at present. President Mellen's plan calls for the expenditure of about $6,000,000, of which amount $1,000,000 would be paid by the city.

NORTHERN PACIFIC TERMINAL.—This company will construct umbrella sheds over tracks in passenger yards in Portland, Ore., at cost of $75,000. Tracks will be relaid in pairs. Sheds will cost about $40,000. They will be constructed upon iron or steel pillars. Plans are now being drawn. E. Lyons, Portland, is Mgr.

NORFOLK & WESTERN.—It is announced that $5,000,000 of bonds have been sold to finance construction, second tracking, yards, replacement of bridges and purchasing new equipment. C. S. Churchill, Ch. Engr., Roanoke, Va.

PENNSYLVANIA.—New tracks will be laid on line between Beatty and Greensburg, Pa.

PORT ANGELES EASTERN.—Construction work on this road will, it is stated, begin soon. W. W. Belvin, Pres. British-American Finance Co. has acquired the old Port Angeles Eastern, as noted on Oct. 6. Funds have been raised. Wharfage and terminal facilities at Port Angeles, Wash., have been secured. The road is bonded for $6,000,000, and stock for $6,000,000 more is to be issued. It will be 300 miles in length, and according to the statement of Mr. Belvin, will tap one of the richest timber districts on the Pacific coast. It will be operated only to Junction City. From there the main line is to be constructed south to Olympia. From Olympia the road will follow the old Union Pacific grade south, crossing the Columbia river near Vancouver, where a ferry will be operated similar to that at Kalama. Point of crossing has not yet been determined upon. Edward F. Cragin, 100 Broadway, New York, is Vice-Pres.

POTOMAC & POCOHONTAS.—Bonds will be issued by this company, it is reported. It will build a line from Keyser, W. Va., to Maysville, W. Va., 40 miles. United States Leather Co. is said to be interested. Eugene Horton, of New York, is Pres., James T. Caldwell, Brookeville, Pa., is Engr.

PRINCE EDWARD ISLAND.—Survey of New London Branch Ry. has been completed. It was run from Emerald Station, on the Prince Edward Island Ry., through New London, Bay View and Stanley Bridge. A 3-span drawbridge will be required over Stanley River.

Work is now progressing on survey from Souris, the eastern terminal of the Prince Edward Island Ry. to Elmyra. James Ruell, of Fredericton, N. B., J. A. Macdonald, Hermanville, P. E. I., and James McLean, Souris, are engineers in charge of the work.

Preliminary survey of West Shore Ry. was begun this month.

ROCK ISLAND.—An amendment to articles of consolidation has been filed in Iowa. It stated that the Rock Island must not increase the debt on the road at any time to a sum exceeding $275,000,000. This does not include the tools and working stock of the road nor bonds that may be issued in the purchase of new railway properties. Amendment was signed by R. L. Winchell, Pres.

ST. LOUIS, BROWNSVILLE & MEXICO.—Special meeting of stockholders will be held at Kingsville, Tex., on Nov. 15, to consider construction work and issuance of bonds. H. W. Adams, Secy.

SAN FRANCISCO & NAPA.—N. W. Collins, County Clk., Napa, Cal., informs us that A. M. Erickson, Napa, has contract for building this road. Grading is nearly done. S. M. Van Wyck, 401 California St., San Francisco, is Pres. Line will be 12¼ miles long.

SOUTHERN PACIFIC.—Shattuck & Desmond, of Los Angeles, Cal., have contract for grading the extension from Calexico to Yuma, Ariz. A sub-contract has been let to W. W. Masten to grade five miles from the end of the track, that is completed 1⅛ miles below the international boundary line. It is expected that the work of grading out of Mexicali will be commenced about Nov. 1st. An Austin, Tex., press report states that this road will build a new line between Eagle Pass and Beeville, Tex., 175 miles. At Eagle Pass the road will connect with the Spofford branch of its transcontinental line and with the Mexican International and at Beeville connections will be made with its New York, Texas and Mexico division.

TEXAS.—An Austin, Tex., press report states that Edward D. Steger, a banker, of Bonham, Tex., and owner of the Denison, Bonham & New Orleans Ry., has returned from Paris, where, it is said, he succeeded in organizing a company of French capitalists with a capital stock of $78,000,000 to build a direct line of railroad from Duluth, Minn., to Galveston, a distance of 2,800 miles. The organization of the company has been perfected, all financial details arranged, and work of construction will be begun as soon as the survey is made, Mr. Steger is quoted as saying.

TONOPAH.—Alonzo Tripp, Gen. Mgr., has stated, according to newspaper interview, that this road will be extended from Tonopah, Nev., to Goldfield. Two routes have been surveyed, each averaging about 28 miles in length.

NEW INCORPORATIONS AND CHARTERS,

ARIZONA & EASTERN.—N. Mex.—This company will build a railroad from Lordsburg, N. Mex., to a point on the Gila River, where it crosses the boundary line between New Mexico and Arizona, and thence to a connection with the Arizona & Colorado, recently incorporated, as noted in full last week. Capital stock, $1,000,000. Incorporators: Epes Randolph, E. A. McFarland and Eugene S. Ives, of Tucson, Ariz., and E. W. Clapp and B. Titus, of Lordsburg, N. M. Distance will be about 50 miles.

BLACK BAYOU.—Tex.—Company has filed charter in this State to build from Myrtis, La., to Stanley, Cass County, Texas, 25 miles. Capital stock, $100,000. Incorporators are: F. E. Gloyd, A. M. Gloyd, of Kansas City; W. B. Gloyd, D. D. Dodd, Lucy L. Dodd, of Myrtis; C. V. Crawford, of Atlanta, Tex., and Loila McMichaels, of Jefferson, Tex., and others. Principal office, Stanley, Tex. Construction work probably will begin about Nov. 1.

CAYUGA LAKE & ITHACA.—N. Y.—Incorpated to build a line from Ithaca, near Third and Hancock Sts., to Ludlowville, near Salmon Creek, about 7½ miles long. Capital stock, $80,000. Incorporators are: John W. Dwight, of Dryden; John E. Emery, Montclair, N. J.; Chauncey S. Strickland, Joseph S. Kearney, George H. Gudebrod and Edward O'Reilly, of New York City; Leroy H. Van Kirk, Elmer A. Denton and Samuel D. Halliday, of Ithaca.

EL PASO, MOUNTAIN PARK & ST. LOUIS.—Okla.—Charter has been granted to this road to build a 350-mile railroad. Capital stock is $7,000,000. Mountain Park, Okla., and Kansas City, Mo., are to be headquarters. Road was incorporated by R. K. Kelly, Mark Roberts, W. P. Bryan, B. Hillyer and Alonzo Osborn, all of Mountain Park. It will run from a point on the Red River, in Greer county, Okla., to northeast boundary line of the Cherokee Indian nation and Seneca Indian nation. In Oklahoma the road will pass through Greer, Comanche, Kiowa, Canadian, Cleveland and Lincoln counties, and through the Chickasaw, Creek and Cherokee nations. Mr. Kelly has stated, acording to a report, that the El Paso, Mountain Park and Oklahoma railway has been merged into the El Paso, Mountain Park and St. Louis, and that capital is available to begin construction.

SAVANNAH, STATESBORO & NORTHERN.—Ga.—Chartered to build a line from Athens, Ga., to Savannah, a distance of 160 miles. Capital, $2,600,000. Incorporators are: J. A. Brannen, J. G. Blitch, J. W. Oliff, R. Simmons, W. B. Martin, W. C. Parker, S. C. Groover, J. F. Brannen, W. T. Smith, J. H. Donaldson and B. T. Outland, of Statesboro, Ga.

SAVANNAH, SHILOH PARK & CORINTH.—Tenn.—A charter has been granted this company to construct a railway from Allen's Creek by way of Savannah and Shiloh to Corinth, Tenn. Capital stock, $50,000. Incorporators: E. P. Churchwell, Edgar Cherry, E. D. Patterson, J. J. Williams, H. A. Williams, D. A. Welch, F. H. Winship, Jeff Rose, Arch Walker, A. J. Williams, J. W. Ross, J. K. Barlow, T. J. Welch and E. W. Ross.

WISCONSIN & ILLINOIS.—Wis.—Incorporated to construct 98 mile road, tapping the zinc mining regions of southwestern Wisconsin and northwestern Illinois. It will extend from Warren or Apple River, Ill., through Bloomington, passing near Shullsburg and through Cuba City, Ipswich, Platteville and Lancaster. From Ipswich a line is to be run to East Dubuque by way of Sinsinawa Mound. A branch is to run from Cuba City to Hazel Green.

STREET AND ELECTRIC RAILWAYS.

CHICOPEE, MASS.—The Board of Aldermen have granted the Springfield Street Ry. Co. a franchise to extend its line from present terminus in Main St. to city line. G. W. Cook is Supt.

NEW LONDON, CONN.—The general contract for building and equipping East Lynne Street Ry. Co. has been awarded, and work of construction will soon be started. The road will run from New London through Waterford to Niantic in the town of East Lynne, and will be about 11 miles long.

ITHACA, N. Y.—The contract for constructing electric railway here, bids received Oct. 20, has not yet been let. The line is a suburban one running from Renwick Beach on Cayuga Lake to Cornell Heights. It is about one-half the distance on private right of way and the other half on newly constructed streets. The line when built will

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

be operated by Ithaca Street Ry. Co. Work will probably be done by local parties, the owners hiring a superintendent to look after it. C. L. Crandall is Engr. Bids for the work were received from the Vermilye Construction Co., New York; C. R. Lewis, Ilion, N. Y., and Frank Pidgeon, Saugerties, N. Y.

LYONS, N. Y.—A power house, to supply the electricity for Rochester, Syracuse & Eastern Railway, will be built in Lyons. The power house will be one of the largest in the state. Ultimately it will have 7,000 HP., furnishing power to operate 80 miles of double-track electric road. Cost, about $250,000. At first it will have a capacity of only 5,000 HP., and will operate the first section of road, from Rochester to Lyons, to be started on Jan. 1, 1906. There is some possibility that Niagara power will be used, according to General Manager Beebe, but he says that the power house will be necessary. The work of grading for the road will be continued as long as the weather permits. Bids on sections 4 and 5 from Palmyra to Newark, and Newark to Lyons, will soon be made.

WINCHESTER, VA.—Surveys will be made at once for an electric road from Winchester to Washington, D. C., to be known as the Winchester & Washington R. R. Co. Henry A. Pressey, 1416 F St., Washington, D. C., is Ch. Engr.

KEYSER, W. VA.—Contracts for the Potomac & Pocohontas Railway, to run from Keyser to Maysville, will soon be let.

KEYSER, W. VA.—According to the "Pink Sheet Daily Bulletin" a charter has been issued to Keyser, Burlington & Pittsburg Electric Railroad Co., of Keyser, to build an electric railroad from Keyser through Burlington to Petersburg. Capital, $600,000. Incorporators: Archibald C. Williams, Abraham P. Gross, T. R. Palmer, John S. Siebert, B. W. Wright and Urus G. Carl, of Cumberland, Md.

TAMPA, FLA.—A movement is on foot to construct a trolley line from Tampa to Green Springs. It is also rumored that St. Petersburg trolley line is to be extended from that city to Green Springs, thus making an electric railway connection along west shore of Tampa Bay all the way from Tampa to the various west coast resorts.

MONTGOMERY, ALA.—The Montgomery Street Ry. Co. will build a new car house. R. F. Scott is Mgr.

BLACKHAWK, MISS.—An interurban line will be built from this place to Itta Bena. Rowan Thayer and Monroe McClurg, of Greenwood, are interested.

GREENWOOD, MISS.—An electric street railway will be built in this city. Samuel J. Stein is the chief promoter.

SHREVEPORT, LA.—An ordinance has been passed granting the Highland Park Traction Co. a franchise to build additional lines here. L. M. Levinson is Mgr.

NEW IBERIA, LA.—Work is to begin at once on the Morgan City-New Iberia electric railway. Routes are being laid out. Gen. F. F. Myles, of New Orleans, is at the head of enterprise.

CELINA, O.—The Geneva Traction Co. has secured right of way through this city, which practically completes its right of way between Geneva and Celina. The company expects to build the road next spring.

CLEVELAND, O.—The Cleveland Electric Ry. Co. has been granted a franchise to extend its line a half mile on Mayfield road. J. J. Stanley is Gen. Mgr.

HUNTINGTON, IND.—J. B. Kenner, City, writes us that negotiations are now in progress to obtain capital for construction of the proposed electric line from Huntington to Goshen, a distance of 50 miles (previously reported). Most of the right of way has been obtained.

TERRE HAUTE, IND.—The several companies owning electric properties of Stone & Webster syndicate, of Boston, have been merged into the Terre Haute Traction & Light Co., with a capital stock of $3,000,000. The charter gives it authority to build traction lines to several towns in Indiana and Illinois. The road to Paris, Ill., will be started in February.

AURORA, IND.—E. W. Swarthart and Harry R. McMullen, of this city, are interested in a proposition to build an electric line between Aurora and Rising Sun. Cars will be operated by gasoline, if electricity is found too expensive. Part of the $10,000 capital stock has been subscribed by citizens of the two towns.

EVANSVILLE, IND.—City Council passed the franchise of the Evansville & Eastern Electric Ry. Co.

ALTON, ILL.—The Alton, Granite City & St. Louis Traction Co., which is building the interurban electric line from Alton to St. Louis, is planning to make improvements and additions to the Alton power house. Auxiliary stations will be built at Edwardsville Crossing and Granite City.

PARIS, ILL.—As a result of discovery of oil and gas in paying quantities at Westfield, a second electric line may be run into this city next year, the Terre Haute-Paris line being already assured. The owners of the Mattoon-Charleston line contemplate an extension to Paris via Westfield. A. J. Hunter, City, is Mgr. Paris & Terre Haute Traction Co.

DECATUR, ILL.—The Bloomington, Clinton & Decatur Electric Railroad Co. has been incorporated with $50,000 cap. stock. The road is to be built from Bloomington through Clinton to Decatur. The incorporators are: W. R. Carle, of Wampella, Ill.; Harry Schlaudman, City; L. R. Murphy, of Clinton, Ill.; Thomas N. Leavitt, of Macon, and H. W. Knight, of Kansas City, Mo.

HILLSBORO, ILL.—Preliminary surveys have been made for the new electric railroad in Hillsboro. The first line will connect the Big Four depot with the business portion of city.

BERLIN, WIS.—The Oshkosh & Western Electric Ry. Co. has been incorporated with $10,000 cap. stock to construct an interurban line between Oshkosh and Berlin. Incorporators: J. H. Porter, Clement C. Smith, Geo. Hilton and C. S. Morris.

PLATTEVILLE, WIS.—A meeting was held in Platteville to make arrangements for an electric road from Dubuque, Platteville, from Apple River, Ill., to Platteville and from thence to Bloomington, with the central power station at Platteville. An eastern firm has guaranteed to float $3,000,000 in bonds to complete the project.

MOORHEAD, MINN.—Council has granted a franchise to the Moorhead Street Ry. Co. for a local system.

OMAHA, NEB.—Frank Murphy, Pres. Omaha & Council Bluffs Street Ry. Co., has offered to extend the West Q St. line in South Omaha to accommodate the Omaha, Lincoln & Beatrice Interurban railway should the latter desire to make an entrance to the city over the local company's rails.

MUSKOGEE, IND. T.—M. M. Byllesby & Co., of Chicago, Ill., who are constructing the gas plant in this city, have been retained as engineers by Muskogee Electric Traction Co. to design and construct a railway with an approximate trackage of 4.7 miles.

GUTHRIE, OKLA.—A territorial charter has been issued to the Kansas & Oklahoma Interurban Ry. Co., with headquarters at Kansas City, and with $1,000,000 cap. stock. The proposed system includes city systems at Arkansas City and Winfield, with connecting lines to Gueda Springs, Kan., and Chiloco, Okla. The incorporators are: L. H. Northrup, N. D. Sanders, Charles Brown, Thomas Baird and A. J. Hunt, of Arkansas City; W. H. Somermier and W. C. Robinson, of Winfield, with Chas. Johnson, of Newkirk, as territorial agent.

DENVER, COLO.—The Colorado & Southern is preparing to build an electric road from Denver to northern Colorado.

SOUTH PARK, WASH.—The Seattle Electric Co. has asked City Council for a franchise to construct extensions to their present line along Eighth St. and along several other principal streets.

SPOKANE, WASH.—A. L. White, of Spokane Traction Co., states that the company will ask for a number of franchises next year and that among other improvements planned is the double tracking of Manito Park line.

INDEPENDENCE, ORE.—Papers incorporating the Independence & Salem Electric Ry. Co. have been drawn up and signed. The incorporators are J. M. Stark, D. Calbreath and C. L. Fitchard. The purpose is to build an electric line connecting Salem and Independence.

TORONTO, ONT.—H. W. Middlemist, 18 Equity Bldg., Toronto, Ch. Engr. Niagara, Queenston & St. Catharines Ry. Co., received bids Oct. 21 for construction of road-bed and wood trestles for 22 miles of above mentioned road.

LIGHT, HEAT AND POWER PLANTS.

BURLINGTON, VT.—Charles Stone was awarded contract for building municipal electric light plant, at $7,750. H. M. McIntosh is Cy. Engr.

WEST RUTLAND, VT.—Vermont Marble Co. will install a $200,000 plant for compressed air at marble quarries here. G. H. Davis, of Proctor, and George C. Robinson, of West Rutland, have prepared plans, a local paper states, for this work.

LYONS, N. Y.—Rochester, Syracuse & Easton Traction Co. will erect a power plant near this place. It will have 7,000 HP. when completed and will furnish power to operate 80 miles of double-tracked electric road. It will cost about $250,000.

ALBANY, N. Y.—Albany Electric Power Co. will develop electric power from waters of Normanskill Creek. The office of the company is located at Normansville. William H. Slingerland, Jr., is Pres., and Charles W. Bentley, Secy.

NIAGARA FALLS, N. Y.—Suburban Power Co. has been incorporated by D. O. Mills and Edward A. Wickes, of New York city; William B. Rankine, De Lancey Rankine and Geo. W Davenport, of Niagara Falls, and Nathan Rochester and James Sweeney, Jr., of Buffalo, to supply power to Niagara Falls, La Salle, Pendleton and Wheatfield, Niagara County, and Amherst and Williamsville, Erie County.

ONEIDA, N. Y.—J. George Kaelber and Richard Doyle, of Rochester, are reported interested in scheme to build an electric power plant at Limekiln Falls. Plans have been prepared for Dewitt C. Hadcock, of Oneida.

CAMDEN, N. J.—The Walker Electric Co., of Philadelphia, will install several 400-HP. Westinghouse motors, ranging in speed from 5 HP. to 150 HP., D. C., 230 v., in new plant of the Victor Talking Machine Co. Also an Albro-Clem electric-operated freight elevator having a lifting capacity of 7,600 lbs., at a speed of 40 ft. a minute.

PATERSON, N. J.—Erie Railroad Co. will erect an immense power plant in this city, in the event of the general electrification of its suburban service.

NEWARK, N. J.—Estimated cost of a municipal plant for Kearney is placed at from $30,000 to $40,000.

WARREN, PA.—Bids are asked until Nov. 5 by A. L. Schellhammer, Chn. Council Light Com., for lighting streets of the borough with electricity or other illuminant for a period of five or ten years.

READING, PA.—The Metropolitan Light & Power Co. may erect an electric plant at Second and Chestnut Sts., if site can be acquired.

PHILADELPHIA, PA.—Dodge & Day, Engrs., Philadelphia, have been commissioned by The Conkling-Armstrong Terra Cotta Co. to engineer the rebuilding and re-equipping of its plant at Wissahickon Ave. and Juniata St., recently destroyed by fire.

NORTHUMBERLAND, PA.—The Northumberland Electric Light, Heat & Power Co. will advertise for bids at once for erecting and installing complete power plant. M. H. Toggart, Secy., may be addressed.

WASHINGTON, D. C.—Appropriation of $222,727 is called for street lighting for 1906 fiscal year.

SALISBURY, N. C.—Preliminary work will soon be completed for the development of the water power available at the "narrows" on the Yadkin River, 18 miles from this city. L. G. Whitney, of New York, Pres. Whitney Reduction Co., and F. L. Stephenson, together with a company of surveyors and contractors, have made preparation for active work. Estimated cost, $5,000,000. It is said that 46,000 HP. may be developed.

CHARLOTTE, N. C.—E. D. Latta, of Charlotte Electric Railway, Light & Power Co., is reported interested in plan to develop 18,000 HP. from waters of the Catawba River.

NEW ORLEANS, LA.—Consumers' Electric Co. has started work on the new building of the company at 331 North Rampart St. It will be four stories high, 138 x 149 ft, of concrete, reinforced with steel. The machinery will be of the most modern type, generating 6,500 HP. Emile Weil is the Arch. Capital is $1,000,000. Jules Dreyfous is Pres.; Chas. Godchaux, Vice-Pres.; Gustave Lehmann, Sr., Secy. and Treas.; W. J. Jones is Consulting and Erecting Engr.

MT. STERLING, KY.—Carroll C. Chenault has been granted a franchise by the city and county to pipe this city with natural gas for lighting and domestic purposes. Mr. Chenault will form a company and at once go to work.

CHATTANOOGA, TENN.—Chattanooga Electric Co., that holds present contract, has submitted low bids for municipal lighting for five or ten years.

FREDERICKTOWN, O.—Village has voted in favor of a $20,000 bond issue for construction of an electric lighting plant. L. C. Stillwell, County Pres., will advertise for bids.

NEW WATERFORD, O.—Question of issuing $5,000 of bonds for electric light plant will be voted upon at November election.

EVANSVILLE, IND.—Board of Public Works will advertise for bids for separate contracts for lighting the city with gas and electricity.

LEBANON, IND.—Electric light franchise has been applied for by Indiana Light, Heat & Power Co., of Indianapolis. Local company also asks for a 25-year franchise. E. T. Lane, W. J. De Vol, and others, are interested in local company.

LAKE LINDEN, MICH.—It is reported that the Calumet & Hecla Mining Co., of Detroit, will install an electric plant at this place.

GREENVILLE, ILL.—R. E. Dunn has been granted a 20-year franchise to construct and maintain an artificial gas plant. Cost will be about $25,000.

MAUSTON, WIS.—The Mauston Electric Light & Power Co. and Mauston Telephone Co. have been acquired by a new company that will be known as the Mauston Electric Service Co. Plants will be remodeled. Dam will be erected or old dam rebuilt. P. D. Curran is Pres. J. Thew is Electrician.

NEVADA, IA.—Franchise has been granted to company to build a gas plant here. Dr. F. S. Smith is interested.

SUMMER, IA.—Hartig & Hellier, of Minneapolis, have been granted a franchise for an electric lighting and power plant.

CLYDE, KAN.—Maynard E. Maggart, of Chicago, will begin work of building an electric light plant here about Nov. It will cost between $8,000 and $10,000.

HARVARD, NEB.—City Council has under consideration three propositions for an electric light plant.

COLUMBUS, NEB.—E. B. Pickhardt, of Chicago, has contract for construction and operation of a gas plant. Cost, $50,000. Work will begin at once.

OAKLAND, NEB.—Council has awarded contract for erection of municipal lighting plant to Rowe & Harrison, of Sioux City, Ia., at $5,900.

FAIRMONT, NEB.—Council has called a special election to be held Oct. 29 for the purpose of voting upon the proposition to issue $6,000 of bonds for a gasoline gas plant.

PAPILLION, NEB.—Omaha, Lincoln & Beatrice interurban line is said to have acquired many acres of land near this place, part of which will be used as a site for a large power house.

LINCOLN, NEB.—Thirty-three bids were received for erecting city lighting plant. Lowest bid is reported to have been submitted by two Omaha companies, as follows: Nebraska Electrical Co., bid on outside construction, $33,260; Western Electrical Co., engines, boilers, electrical machinery and connections, $28,286; total, $61,546. Engineer's estimate of cost was $69,714.64.

LOUISIANA, MO.—Louisiana Gas & Electric Light Co. has increased capital from $50,000 to $100,000.

LITTLE ROCK, ARK.—Erection of brick addition, 40 x 60 ft., to electric light plant and the installation of new boilers, will cost $10,000. Previously noted. J. W. Bleidt is Supt.

DALLAS, TEX.—Bids are asked until Dec. 6 for furnishing 350 to 600 electric arc lights on a five-year contract, and constructing a lighting plant of from 500 to 1,000 arc lights, etc. J. B. Winslett, Cy. Secy. (Advertised, Engineering News.)

RALSTON, OKLA.—Riverside Gas & Supply Co. has been chartered with capital stock of $100,000, to furnish natural and artificial gas for heating and lighting purposes and provide fuel. Incorporators are: W. F. McCague, H. E. Thompson, William Murdock and R. L. Carruthers, all of Ralston.

DENVER, COLO.—Lindsay Duncan, Consult. Engr., Ernest & Cranmer Bldg., writes us that plans are being drawn for a central heating plant for the Y. M. C. A. sanitarium. Contract will be awarded about Nov. 4.

LEADVILLE, COLO.—M. Deems, P. O. Box 697, Leadville, writes that an electric light and power plant is needed in this city. He states that present lighting plant has 180 arcs costing from $8.33 to $10 per month each; there are also about 1,666 subscribers for small light, from 1 to 20 lights to each subscriber. Incandescent lights cost $1 per month, flat rate; 159 KW. by meter. More people burn gas than use electric light, the gas cost $1.50; cooking, $2.75; light, per 1,000 ft. Coal cost $2.25 per ton in Leadville. There is no day current supplied at present. There are 13,000 people in Leadville and about 2,000 more within a radius of 2½ miles of town. All the mines within 3 miles of town and produce 2,500 tons of ore per day.

CHEWELAH, WASH.—D. F. Strobeck, Rose Court, Spokane, is said to be interested in project to construct water works and an electric light and power plant at Chewelah, at a cost of $15,000. P. Byrn, of Spokane, is Engr.

SEATTLE, WASH.—Renton Hill Improvement Club will ask Council to introduce an ordinance authorizing the expenditure of $300,000 to increase city electric light plant.

LA GRANGE, ORE.—La Grange Water Storage Co. will construct an electric plant, at cost of $100,000. Contract probably will be let in November. E. W. Cummings, 20 Dexter Horton Bldg., Seattle, Wash., is Engr.

OAKLAND, CAL.—Stanislaus Power Co. with a capital stock of $5,000,000, has been incorporated by Sidney Sprout, J. P. O'Brien, Max L. Rosenfeld, E. E. Peabody and J. A. Thomas. It is the purpose of the company to distribute light and power in the central counties of California.

OROVILLE, CAL.—Col. Henshaw and associates will construct a power plant to furnish electricity for light and power purposes when a franchise is granted. It is probable that lines will be run to Chico, Oroville and Marysville.

OXNARD, CAL.—E. P. Foster has made application to Board of Trustees of Oxnard for a franchise to lay, use and operate gas pipes and the right to manufacture gas. Bids for this franchise will be received by Board until Nov. 19.

SUISUN, CAL.—Leonard Prior has been granted a franchise to maintain an electric lighting and power system in Suisun for 25 years.

QUEBEC, QUE.—E. Gauvin, of the Provincial Crown Lands Dept., and Beaudry Leman, Ch. Engr. and Gen. Mgr. of the Shawinigan Falls Water Power Co., are said to have completed plans for the construction of a water power plant at St. Anne and Seven Falls for the Quebec Electric Co., contracts probably will be let soon. The two falls will develop between 22,000 and 25,000 HP.

VANCOUVER, B. C.—Victoria Power Co., incorporated with authority to issue bonds in sum of $750,000, contemplate the diversion of water from the Koksilah River or any of the small lakes to Shawnigan Lake and convey it to Mill Bay. Power obtained will be used for industrial, lighting and street railway service in Victoria and Esquimault. Work will be started soon.

BRIDGES.

CHICOPEE, MASS.—The State Harbor and Land Commissioners have approved plans filed by Hampden County Commissioners for proposed bridge across Connecticut River here.

GREENWICH, CONN.—The Railroad Commissioners have authorized the construction of a four-track drawbridge over Cos Cob River here to replace a double-track bridge.

NEW YORK, N. Y.—The following bids were received by Aqueduct Commission Oct. 25 for building a private road bridge superstructure, 150-ft. span, across Croton River, in town of Cortlandt: Levering & Garrigues Co., 552 West 23d St., City, $9,684; Penn. Bridge Co., Beaver Falls, Pa., $8,574; American Bridge Co., 100 Broadway, City, $8,990; King Bridge Co., 277 Broadway, City, $9,-636; Jno. Kenny, Jr., 39 Cortlandt St., City, $8,100; McClintic-Marshall Const. Co., 21 Park Row, City, $10,938.

PALATINE BRIDGE, N. Y.—Hurst, Cole & Howarth have been awarded the contract for constructing a concrete bridge across a ravine near here. The arches are to be 63 ft. in length and retaining walls 40 ft. high. Cost, $10,000. The work is to be done by this town and commenced at once.

DOVER, N. J.—Common Council passed an ordinance empowering the Lackawanna R. R. Co. and the Morris County Traction Co. to jointly construct a viaduct over Lackawanna tracks on Blackwell St. Cost, $60,000. Work is to begin within 30 days. Lincoln Bush, of Hoboken, is chief engineer of railroad.

HARRISBURG, PA.—The following were lowest bids received by Board of Public Buildings and Grounds for state bridges: Conewago bridge, York county, York, (Pa.) Bridge Co., $49,000; Conoquessing, Butler county, King Bridge Co., Cleveland, O., $33,000; Muncy bridge, Lycoming county, W. H. Gulick & Co., Phoenixville, Pa., $16,210; Catawissa bridge, Columbia county, Penn Bridge Co., Beaver Falls, Pa., $21,940.

FREDERICKSBURG, VA.—A steel bridge will be built over the Rapidan River at this place, by Spottsylvania and Culpeper counties.

STATENVILLE, GA.—Bids are asked by G. W. Prince, County Clk., until Nov. 8 for constructing steel bridge over Alapalia River, near here.

ROME, GA.—Bids are asked until Nov. 7 for building a bridge over Little Cedar Creek. The bridge consists of a span, abutments and trestle approach on the north side, with an apron about 16 ft. long on south side. G. E. Maddox, Clk.

MONROE, LA.—The police jury of Ouachita parish has let the contract for building of six steel bridges to M. S. Hassie, of Dallas, Tex., for $12,568.

AKRON, O.—It is reported that Council will soon advertise for bids for Mill St. viaduct. Specifications call for a concrete or stone superstructure.

FREMONT, O.—Bids are asked by County Commissioners until Nov. 5 for construction of west bridge abutment, to be built of stone or concrete, between Riley and Green Creek Townships. S. M. Fronizer County Audr.

TOLEDO, O.—Lucas County Commissioners intend building bridges in Sylvania and Washington townships. Bids will probably be advertised for after Nov. 1. D. T. Davies, Jr., is County Audr.

COVINGTON, IND.—Bids are asked by County Commissioners until Nov. 1 for constructing grade and approach to Wabash River bridge at Perrysville. Lindsey Coleman, Chn.

INDIANAPOLIS, IND.—The lowest bids received by Board Public Works for a concrete-steel arch bridge over Pleasant run at East Washington St. was $10,888, from the National Bridge Co. The bids were referred to City Engineer for investigation.

EVANSVILLE, IND.—Bids are asked by County Commissioners, until Nov. 17, for constructing eight small steel bridges. Harry Stinson, County Audr.

INDIANAPOLIS, IND.—County Commissioners opened bids for construction of 18 small bridges. The largest bridge is over School branch in Pike township, on which the lowest bid, that of National Bridge Co., was $1,975. The aggregate amount of bids will be about $25,000.

MOUNT VERNON, IND.—Bids are asked by Silas G. Howard, County Audr., until Nov. 9, for construction of two steel bridges.

DELPHIA, IND.—Bids are asked by Fred. H. Engel, Audr., Carroll County, until Nov. 7 for construction of three bridges or arch culverts; also for stone abutments.

MT. CLEMENS, MICH.—A new bridge, to be built jointly by Clinton and Erie townships over Clinton River at South Gratiot, is proposed. Cost about $25,000.

ALTON, ILL.—The Kenwood Bridge Co., Chicago, has the contract for a 1,500-ft. viaduct here for the Alton & Granite City Electric Ry Co. The viaduct will have three 150-ft. steel spans.

SIGEL, ILL.—Contract for constructing a bridge over Little Wabash River here was awarded to Berchtold & Bigler, of this place, for $2,495.

HARVEY, ILL.—It is reported that the Blue Island, Riverdale & Hammond Electric road will build a new bridge over the Calumet.

DECATUR, ILL.—The Decatur Bridge Co. has been awarded the contract to build all bridges for the new interurban between Springfield and Lincoln.

BLOOMINGTON, ILL.—A contract has been awarded for construction of a new steel bridge in Rook's Creek township, to the Massillon Bridge Co., for $2,000.

CHICAGO, ILL.—Bids for bascule drawbridge on the joint track elevation work were received by Chicago & Alton R. R. Co., as follows: Scherzer Rolling Lift Bridge Co., $155,000; Page & Shnable (Page bridge), $153,000; Roemheld & Gallery (Strauss bridge), $134,000.

SIOUX CITY, IA.—City Engineer was instructed to prepare plans and specifications for a new structure over Perry Creek in Third St.

SUPERIOR, WIS.—A petition has been presented to City Council asking that a bridge be constructed across Nemadji River at Grand Ave.

RACINE, WIS.—City Council has condemned Main St. bridge as dangerous.

ANSON, WIS.—This town will build a steel bridge over Chippewa river, to cost about $10,000.

MILWAUKEE, WIS.—The Finance Committee has recommended a bond issue of $125,000, for a new bridge across Kinnickinnic River, at Kinnickinnic Ave.

LITTLE FALLS, MINN.—Bids are asked by County Commissioners until Nov. 11 for constructing a 75-ft. high truss steel bridge across Platte River at Agram. Wm. A. Butler, County Audr.

GRAND RAPIDS, MINN.—Bids are asked by County Commissioners until Oct. 28 for constructing a bridge 400 ft. long across Popegama Brook. J. G. Fraser, Comr.

ST. PAUL, MINN.—The Board of Aldermen passed a resolution directing the City Controller to set aside $10,000 from the bridge fund for a new floor on Third St. bridge. L. W. Rundlette, Cy. Engr., was authorized to advertise for bids.

TOPEKA, KAN.—An ordinance providing for the construction of a bridge across Kansas River on Kansas Ave. was passed by City Council. J. H. Squires, Cy. Clk.

OMAHA, NEB.—Work will soon begin on the plans for Eighth St. viaduct, which the Union Pacific has had in contemplation for some time. It is expected that the viaduct will be built within the next six months.

PAWNEE CITY, NEB.—Bids are asked by County Commissioners until Nov. 4 for furnishing material and constructing all bridges that may be needed in Pawnee County for one year, from Dec. 1.

FARGO, N. DAK.—Bids are asked by Cass County Commissioners, until Nov. 7, for construction of a 48-ft. bridge in Barnes township. Arthur G. Lewis, County Audr.

SANTA FE, N. MEX.—County Commissioners awarded to Walter Sharpe, of Eldorado, Kan., the contract for constructing a stone bridge across Santa Fe River at College St. for $3,940.

SANTA FE, N. MEX.—All the bridges on the Santa Fe are out on the north. A. F. Robinson, of Topeka, Kan., is Bridge Engr.

PORT TOWNSEND, WASH.—A bridge will be built in the spring across Bogachiel River. It will be of steel, with spans 125 ft. C. W. Walker is County Surv.

ASTORIA, ORE.—Bids are asked by County Clerk until Nov. 2 for construction of two bridges in road district No. 12.

LOS GATOS, CAL.—Resolution was adopted and approved by Board of Trustees to construct a concrete, steel and stone bridge on Main St., across Los Gatos Creek, to cost about $20,000. K. H. Erickson is Town Clk.

REDWOOD CITY, CAL.—Bids are asked by H. W. Schaberg, County Clk., until Nov. 7, 10 a. m., for constructing a steel concrete bridge and culvert. Bids to be separate for each bridge.

REDWOOD CITY, CAL.—Savage & Co. were awarded contract for bridge No. 3 to be constructed over Arroyo Canyada Verde on county road leading from Halfmoon Bay to Purissima, bid being $4,444.

WATSONVILLE, CAL.—Bids are asked by Board of Supervisors until Nov. 7, 10 a. m., for construction of a bridge on Shell Ave. in Pajaro road district. H. H. Miller, Clk.

BRADFORD, ONT.—It is the intention of Dominion Government to build a steel bridge over Holland River at this place.

OTTAWA, ONT.—Bids are asked by L. K. Jones, Secy. Dept. of Rys. and Canals, until Nov. 8 for constructing substructure of Atwater Ave. bridge.

FREDERICTON, N. B.—Surveys are being made by Provincial Public Works Department for a new steel bridge to be built over St. John River at Pokiok.

GLADSTONE, MAN.—The Municipal Councils of Westbourne and Lansdowne will build a Warren steel truss bridge on concrete abutments over White Mud River.

BUILDINGS.

NASHUA, N. H.—Bids were received on Oct. 18 for constructing post office here, as advertised for in Engineering News. Three lowest bidders were: Richardson & Burgess, Washington, D. C., $62,647; Conners Bros. Construction Co., Lowell, Mass., $62,000; A. B. Stannard, New York, $63,785.

LYNN, MASS.—A theater with seating capacity of 1,000 will be built here this year for a syndicate headed by Edward Heffernan and Harry Katzes. Wheeler & Betton are now preparing plans which call for a brick structure of fireproof construction.

MARBLEHEAD, MASS.—All bids were rejected for the government building here. Arthur W. Rice, Boston, the Arch., will prepare new plans. The lowest bid submitted was $74,000; $70,000 is available for the work. Treasury Department will readvertise for proposals upon acceptance of the revised plans.

BRIDGEPORT, Conn.—Bids are asked by Treasury Department, Washington, D. C., until 2 p. m., Nov. 2, for manufacturing and installing, in complete working order, in the Post Office building, certain combination gas and electric light fixtures. H. A. Taylor, Act.-Secy.

NEW BRITAIN, CONN.—Group of brick, steel frame fireproof buildings for the insane will, it is reported, be erected at Brewster's Neck, at a cost of $800,000. The buildings will consist of an administration building, four stories high, 17 × 85 ft.; two ward buildings, each two stories high, 35 × 165 ft., with toilet house, two stories high, 36 × 60 ft.; a dining hall, kitchen and chapel, one and two stories high, 80 × 375 ft.; a laundry, two stories high, 88 × 100 ft.; a central power and heating station, 50 × 100 ft., two stories high, of concrete and steel construction, provided with the latest coal handling apparatus, boilers and electric lighting plant.

NEW YORK, N. Y.—Bids are asked until Nov. 9 at New York Arsenal, Governor's Island, N. Y., for repairing a 1-story brick and steel building, 136 × 30 ft., known as storehouse No. 3. Col. John E. Greer, Comdg.

Joseph Bower, 388 Wallabout St., Brooklyn, has been awarded contract for plumbing, heating and lighting of woman's prison at Tombs prison, at about $9,644.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Nov. 3 for installing automatic steam-heating system in Tremper House, Van Cortlandt Park. John J. Pallas, John J. Brady and Michael J. Kennedy, Comrs. Parks.

NEW YORK, N. Y.—Plans have been filed by F. C. Browne, 143 West 125th St., Arch., for 12-story brick loft and stores, 41 × 130 ft., at 684 Broadway, for P. Braender, 63 West 125th St. Cost, $350,000.

NEW YORK, N. Y.—The Board of Estimate has authorized $115,000 for a new station house in 19th Precinct.

FLUSHING (L. I.), N. Y.—The following bids were received by Armory Commission at Albany on Oct. 17 for erecting an armory here: General construction work—Hudson Valley Construction Co., Troy, $78,885; Geo. L. Walker, New York, $94,164; Hugh L. Weber, New York, $95,398; Church Construction Co., New York, $89,850; Ryan & McFerran, New York, $97,750; Dean & Haven, Olean, $63,121; Richard E. Heningham, Brooklyn, $94,-574; North Eastern Construction Co., New York, $92,780; Peter Keeler Bldg. Co., Albany, $75,614. Electric light and fixtures, Frost & Sheldon, Albany, were lowest bidders, at $4,222. Heating—Dean & Havens were lowest bidders, at $3,435. Plumbing—R. T. Ford was lowest bidder, at $2,900. Appropriation is $72,000.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

NEW YORK, N. Y.—Franklin Baylies, Arch., Bible House, has plans ready for bids on 2-story brick, stone and iron addition to the brick and stone storage and office building at West Broadway and Franklin St., owned by Jas. S. Wm. H. Barron, 23 Jay St. New piers, girders, beams, columns, partitions, fireproof doors, electric wiring, plumbing and steam heat will be needed. Cost, $85,000.

SARATOGA SPRINGS, N. Y.—James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., is having plans prepared for a post office for this city.

NEW YORK, N. Y.—Bids are asked until 3 p. m., Oct. 31, for erecting public bath building on Ave. A, between 23d and 24th Sts. Plans were prepared by Wm. M. Aiken and A. W. Brunner, associated Archs., 33 Union Sq. It will be 163 × 140 ft., one story high, fireproof, of brick and limestone, steel frame. Cost, about $250,000. Bids will be received also Oct. 31 for completing plumbing and drainage of this building. John F. Ahearn, Boro. Pres.

Bids are asked until Oct. 31 by C. B. J. Snyder, Supt. School Bldgs., Bd. Education, for installing heating and ventilating apparatus in public school 39, Longwood Ave., Bronx. Bids also will be received for improving site of school 34, Boro. Richmond.

CONOQUENESSING, PA.—Reported that Conoquenessing Lodge, Odd Fellows, will erect a 6-story business block and lodge house here. Cost to be about $70,000.

PITTSBURG, PA.—F. J. Osterling, Arch., has plans for an addition of two stories to Allegheny County House. No estimate of cost has been made.

PITTSBURG, PA.—John J. O'Reilly will erect four 6-story warehouses on Liberty Ave., near 16th St. Edward Stotz, City, is Arch.

The Natatorium Co. has purchased site at Shady Ave. and Aurelia St., East End, and will erect large natatorium. F. A. F. Lovejoy, Frick Bldg., City, is Pres. of company.

H. W. Joynes, City, will erect large apartment house on Thurston property, Mt. Washington, City. Cost, $40,000.

A Richmond & Son, Home Trust Bldg., City, have purchased site and contemplate the erection of apartment house, 65 × 100 ft., at Bellefonte and Elmer Sts., City.

Congregation of Trinity Episcopal Church, 6th Ave., City, will erect new parish house on site of old structure. Plans have been drawn. Cost, $50,000.

SOUTH OIL CITY, PA.—Congregation of St. Stephen R. C. Church, Rev. Jas. I. Fielding, pastor, has had plans drawn for church building. Cost, $45,000. W. P. Ginther, Arcade Bldg., Akron, O., Arch.

HARRISBURG, PA.—Bids will be received by C. Howard Lloyd, Arch., next month, it is stated, for a 12-story addition, 105 × 88 ft., to the Technical High School. Brick and iron, stone trimmings, fireproof, concrete floors, electric light, plumbing and heating plant. Another story will be added later and equipped for a machine shop, chemical, physical and biological laboratory. Cost, $50,000.

WASHINGTON, D. C.—Plans have been prepared for John W. Ross school building, to be erected on Harvard St., Columbia Heights. C. A. Didden & Son are Archs. Plans for the Henry T. Blow building, at 19th St. and Benning Road, N. E., will be ready soon.

WASHINGTON, D. C.—District Commissioners have asked $175,958 for erecting new school buildings during 1906 fiscal year; $55,000 for new engine houses; $75,000 for new police court; $160,000 for new buildings for Washington Asylum; $150,000 for beginning municipal hospital building; $100,000 for Hospital for Women (cost is not to exceed $300,000), and $50,000 for Industrial Home for Colored Children.

BALTIMORE, MD.—Plans submitted by E. H. Glidden, 419 North Charles St., have been accepted in competition for the new Seventh Baptist Church, to be built at North Ave. and St. Paul St. Stone, concrete, brick and iron, about 65 × 120 ft., steam heat, electric light, stained and plate glass. Cost, $60,000.

Merchants Hotel Co., Jacob Epstein, Vice-Pres., Baltimore St., has purchased site on Howard St., near Fayette St., and on it will erect an 8-story hotel, 65 × 125 ft. Brick, concrete, stone and steel, fireproof, steam heat, electric light, elevators. Cost will be about $125,000.

BALTIMORE, MD.—It is reported that plans are now ready for new Pennsylvania Union station. Approximately $1,000,000 will be spent in the erection of this building and construction of proposed freight belt line around the city. Station will be erected on present site.

Charles E. Cassell & Sons, Archs., will prepare plans for a 10-story building that will be erected on Courtland St., between Lexington and Saratoga Sts. Wm. G. Speed, Mgr., 114 South Eutaw St., is interested.

Charles Gilpin is reported to have contract to build an 8-story hotel at Baltimore and Hanover Sts. Total cost, including site, about $600,000. Sylvester Stokes, Hotel York, New York, is owner.

NORFOLK, VA.—Bids are asked by Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., until 12 noon, Nov. 22, for construction of two officers' quarters at the U. S. Naval Hospital. Drawings can be obtained upon application to the architects, Wood, Donn & Deming, 808 17th St., Washington, upon deposit of $5, $2.50 of which will be refunded upon return of drawings.

CHARLESTON, S. C.—Bids received by Bureau of Yards and Docks, Navy Dept., Washington, D. C., for a foundry for building No. 6, Navy Yark, were as follows: (Each bid contains certain deductions and modifications) W. O. & C. G. Burton, 1016 Hibernia Bank Bldg., New Orleans, La., $73,000; Simons-Mayrant Co., 16 Broad St., Charleston, $68,823; Moise De Leon, 506 English-American Building, Atlanta, Ga., $64,870; Standard Construction Co., First National Bank Bldg., Chicago, Ill., $80,-480; The Hunkin Bros. Construction Co., 314 Cuyahoga Bldg., Cleveland, O., $97,627; Nicholas Ittner, 240 Jackson St., Atlanta, Ga., $93,872; John C. Robinson, 113 Adams St., Chicago, Ill., $77,495; Grant Wilkins, 23½ Whitehall St., Atlanta, Ga., $71,000; Penn Bridge Co., 312 Bond Bldg., Washington, D. C., $71,389; Clark Construction Co., Chicago, Ill., $70,197; E. T. Mankin, 812 East Main St., Richmond, Va., $69,896, and Conners Bros. Construction Co., 16 Thorndike St., Lowell, Mass., $89,000.

ATHENS, GA.—Bids are asked by James Knox Taylor, Supervis. Arch., Treasury Dept., Washington, D. C., until Nov. 17 for the installation of low-pressure steam-heating apparatus complete in place for post office and court house.

ATHENS, GA.—Bids are asked until noon, Oct. 29, for erecting 3-story brick building, 67 x 78 ft., for University of Georgia. C. M. Strahan, Arch., Athens, Ga.

BLAKELY, GA.—Contract for building Early County court house was awarded to W. T. Jay & Co., at $50,000.

ATLANTA, GA.—Plans are prepared for additions to federal prison here; $300,000 was appropriated by Congress at last session. W. C. Eawes is the Arch.

SAVANNAH, GA.—Contract for National Bank of Savannah building has been awarded to General Supply & Construction Co., of New York. Building will be ten stories high. It will be erected at Broughton and Bull Sts. Cost, $350,000. H. Witcover is Arch.

NEW ORLEANS, LA.—St. Joseph Parochial School has been granted permit to build school on Roman St., between Tulane, Bolivar and Gravier Sts. Two stories, composition roof, brick. Cost, $89,000.

SHREVEPORT, LA.—Question of issuing $100,000 of bonds for new city hall will be voted upon. Andrew Querbes is Mayor.

LOUISVILLE, KY.—Congregation of St. Paul's German Evangelical Church will erect a $50,000 church, probably on Broadway, between Preston and Jackson Sts.

CINCINNATI, O.—Board Public Service has rejected plans submitted for new hospital to be erected on site at Burnet and Goodman Sts. The commission has been directed to proceed with the preparation of new plans to accommodate not less than 750 patients. Cost is not to exceed $900,000, including equipment, cost of ground and furnishing the buildings.

COLUMBUS, O.—James Stewart & Co., Pittsburg, have been awarded contract for Baltimore & Ohio Ry. freight house here. Cost, $100,000.

YOUNGSTOWN, O.—Niedermeier & Restle, of this city, were awarded general contract to build Baltimore & Ohio Ry. Co. station on Mahoning Ave. It will cost $50,000.

TOLEDO, O.—Joseph Ramsey, Jr., Pres. Wabash Ry. Co., has stated that a $500,000 building will be erected here, corner Adams and Tenth Sts. Cross-town line will be built by Wabash Co. at cost of about $2,500,000.

CHICAGO, ILL.—Atchison & Edbrooke, Archs., are preparing plans for a church to be built at Garfield Boulevard and Throop St. for the Eighth Presbyterian congregation, Rev. John W. Clenahan, pastor. It will be 55 x 110 ft., of pressed brick and stone, and will cost $55,000.

New bids will be received by Richard E. Schmidt, 172 Washington St., the architect for the Michael Reese Hospital building, to be erected at 29th St. and Groveland Ave. Cost, about $400,000.

CHICAGO, ILL.—Bids are being received by J. F. & J. P. Doerr, 138 Washington St., for an apartment building, to be erected on 47th, near Greenwood St., for W. P. Doerr. Three stories, 75 x 102 ft., press brick, with stone trimmings, composition roof, steam heat, combination light fixtures, etc. Cost, $50,000.

Holabird & Roache, Archs., Monadnock Bldg., are taking figures for store building, to be erected at 417 to 423 Wabash Ave., for Mandel Bros. Ten stories, stone, brick and steel construction, composition roof, steam heat, iron and steel work, combination light, fixtures and sheet metal work. Cost, about $400,000.

WOODLAWN, ILL.—A. L. Colcord, 108 Dearborn St., Chicago, is receiving bids for an apartment building, to be erected here for L. C. Wagner, 63d and Madison Sts., Chicago. Three stories, 100 x 165 ft., stone and press brick, composition roof, steam heat, combination light fixtures. Cost, $60,000.

CHICAGO, ILL.—Bids are being received by Board of Education, Tribune Bldg., it is reported, for Whitney school building, to be erected at West 28th St. and South 40th Ave. Three stories and basement, about 120 x 204 ft., brick, stone, steel and fireproofing, direct and blast steam heating, combination light fixtures and nickel plumbing. Separate bids will be received on the following work: Masonry, carpentry, heating, plumbing, plastering, painting and finishing, hardware, fixtures, shades, glass and glazing, tile floors, asphalt floors, concrete floors, iron stairs, window guards, sewers, ventilation, cut stone, sheet metal and tile roofing, structural iron, marble and tile, steam heating, sewer work, heat regulation, electric wiring, telephone and bells. Cost, $175,000. R. B. Williamson is Act.-Arch.

Jenney & Mundie, Archs., New York Life Bldg., are receiving bids, it is said, for addition to the Fair building, State and Adams Sts., 190 x 350 ft., built to correspond with present structure, composition roof, steam heat, iron and steel work, combination light fixtures, plumbing, etc. Cost, $300,000.

WINNETKA, ILL.—Raeder & Coffin, Archs., Schiller Bldg., will receive bids for Winnetka Congregational Church. One story and basement, 100 x 86 ft., of brick and stone. Cost, $75,000.

DES MOINES, IA.—It is reported that the owners of the Savery Hotel will make improvements to the hotel that will cost $150,000.

DULUTH, MINN.—J. W. Hilliard was awarded contract for new poor house at $33,980. Three stories and basement, 120 x 150 ft., with 30 x 50 ft. wing, concrete block construction.

VIRGINIA, MINN.—Separate bids are asked until Nov. 1, 8 p. m., for (1) fireproof ceiling and cement floor, to be completed on or before Dec. 1st, 1904, (2) for eight steel jail cells, to be completed on or before Dec. 31st, 1904. A. N. Thompson, Cy. Clk.

ST. PAUL, MINN.—Executive Committee, Board of Regents, State University, has decided to build a $250,000 building next spring. E. W. Randall and J. T. Wyman, of Minneapolis, are members of Board.

WINFIELD, KAN.—H. J. Allen, Pres. State Board of Charities, has notified Dr. Newlon, Supt. Imbecile Asylum, that his request for $64,000 apportionment for new buildings, improvements and equipment would be recommended to be appropriated by next legislature.

OMAHA, NEB.—Bids are asked until Nov. 10 by Lieut.-Col. J. E. Sawyer, Ch. Q. M., for constructing an administration building at Fort Robinson, Neb.

COLUMBIA, MO.—Missouri University will build a gymnasium. Walter Williams, Chn. of Executive Board, Bd. Curators will let the contract for the new building at once. It is to cost $80,000.

KANSAS CITY, MO.—Frederick C. Gunn and Root & Siemans, associated Archs., inform us that contract for excavation and foundation for proposed city hospital will be let in November. Contract for superstructure will not be awarded until next spring. There will be six buildings, all fireproof, of brick, cut stone and terra cotta. Estimated cost of building is $225,000, and $25,000 for equipment. Mr. Gunn may be addressed at 1021 Grand Ave., Kansas City.

WYNNE, ARK.—M. T. Lewman & Co., of Louisville, Ky., have been awarded contract for county court house, at $70,000.

EL PASO, TEX.—It is reported that funds have been raised and steps will be taken to organize a company to erect an opera house here, to cost from $50,000 to $75,000. Alfred Courchesne is promoting the enterprise.

PORT ARTHUR, TEX.—$80,000 industrial school is under consideration. Plans have been drawn.

PUEBLO, COLO.—Y. M. C. A. will erect two buildings here to cost $75,000, it is stated.

SEATTLE, WASH.—Bebb & Bendell, Archs., are drawing plans for 3-story addition to the Masonic Temple. Improvements will cost about $100,000. E. C. Neufelder, of the People's Savings Bank, is interested.

Tentative designs for a new 12-story business block, to cost $750,000, have been prepared by Max Umbrecht, Arch., for J. W. Clise, local representative for L. C. Smith, of Syracuse, N. Y., owner of the property. Details of the proposed improvement have not yet been decided upon, it is said.

American Savings & Trust Co., J. P. Gleason, Mgr., has completed all arrangements for the erection of a 12-story building, 60 x 120 ft., that will cost when completed about $200,000. It will be erected at Madison St. and Second Ave.

City Council has passed ordinance providing for a special election to be held Dec. 6 to vote $175,000 bonds to erect a new city jail and hospital building. Proposition to issue $500,000 bonds to erect a city hall and $150,000 to purchase additional ground also is under consideration.

SEATTLE, WASH.—Bids are asked until 7.30 p. m., Nov. 1st for the electric conduit and wiring system for incandescent lights and power for Public Library building. P. J. Weber, Arch., Fisher Bldg., Chicago, Ill.

SEATTLE WASH.—Adjt.-Gen. Drain, Col. Lamping, R. H. Thomson and Chas. Baker are considering plans for a new armory building for Seattle, for which last legislature appropriated $30,000. Plans will be drawn for a $100,000 building and next legislature will be asked for additional appropriation. Kerr & McCord, Saunders & Lawton and J. E. Blackwell have been commissioned to prepare plans.

PORTLAND, ORE.—J. E. Bennet, of Portland, has been awarded contract for the erection of the government buildings at the Lewis and Clark Exposition at $235,482. Buildings are to be completed by March 1.

ASTORIA, ORE.—M. W. Whipple is interested with other business men in plan to erect a hotel and theater to cost about $125,000.

PORTLAND, ORE.—Following bids were received Oct. 17, as advertised for in Engineering News, for construction of U. S. government buildings, Lewis and Clark Centennial Exposition: Robert Wakefield, Portland, $262,039; Burrell Construction Co., Oakland, Cal., $255,719; Goldie Bros., Portland, $265,268; J. E. Bennett, Portland, $235,482.

LONG BEACH, CAL.—Signal Hill Improvement Co. that is developing Signal Hill will begin work soon on the pavilion and the railroad. A site of three to five acres has been reserved. Company will erect a $100,000 hotel on the tract. Water will be piped to the property and street work done.

A. F. Rosenheim, Arch., has commenced plans for 8-story fireproof bachelor apartment building to be erected at Main and Fourth Sts. Contracts will be let by Jan. 1. Estimated cost is $400,000.

Mrs. Emma H. Peery has awarded contract to Henry R. Angelo for construction of 7-story hotel on Olive St., between Fourth and Fifth Sts. Robert A. Brown has contract for concrete foundation work, that is now completed. E. D. Hough has been awarded contract for steam heating plant at $3,850. Entire cost, $100,000.

SAN FRANCISCO, CAL.—Bids are asked until Nov. 16 for an emergency hospital at infantry cantonment at Presidio. Wm. S. Patten, Ch. Q. M.

It is stated that the authorities at the Presidio and at Mare Island expect the next Congress to make appropriations for extensive improvements at these two places. On report of Major John P. Wisser, Capt. L. R. Burgess and Capt. G. P. White the War Department will ask for an appropriation of $960,000 for new artillery barracks at the Presidio. Commodious brick buildings with steel frames are planned at Mare Island Navy Yard.

Thomas Richard, Pres. Bd. Trustees, has advocated public improvement bond issue, it is said, that will include the following sums for city work: City hall, $100,000; wharf, $50,000; schools, $125,000; manual training in schools, $20,000; sewers, $165,000; street, $7,000; parks, $25,000; fire department, $35,000.

LOS ANGELES, CAL.—Louis E. Porter has purchased site at Hill and Court Sts. on which he proposes to erect a large hotel to cost from $100,000 to $200,000. He also will construct an incline railway.

STOCKTON, CAL.—Bids are asked until Nov. 14 for the construction of a freight shed of steel and galvanized iron, abutting Stockton channel on the south side, with necessary aprons and slips. Geo. S. Wheatly, Clk. Bd.

STRATFORD, ONT.—Bids are asked until Oct. 31 for construction of an armory here. Plans and specifications can be seen and forms of tender obtained at Department of Public Works and at the Band Room of the 28th Regiment, Stratford. Fred Gelinas, Secy. Dept. Pub. Wks., Ottawa, Ont.

WOODSTOCK, ONT.—Bids are asked until Oct. 31 for constructing an armory at this place. Plans and specifications may be seen and forms of tender obtained at Department of Public Works and at the office of J. Ure, Esq., City Engr., Woodstock. Fred Gelinas, Secy. Dept. Pub. Wks., Ottawa, Ont.

CHATHAM, ONT.—Bids are asked until Oct. 31 for building a drill hall. Fred Gelinas, Secy. Dept. Public Wks., Ottawa, Ont.

VICTORIA, B. C.—Bids have been received by Canadian Pacific Ry. Co. for erection of office building here. F. M. Rattonbury is Arch. Geo. H. Webster, Division Engr., Vancouver, B. C., may be addressed.

WATER SUPPLY AND IRRIGATION.

BANGOR, ME.—It has been decided to use the alum process in filtering the water of the public supply. Special Committee report estimated cost at $20,000, and also urged that the city take steps to secure a new supply from one of the several available sources.

FRANKLIN, N. H.—City Water Commissioners have been considering means for increasing supply.

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HARDWICK, VT.—We are informed that matter of proposed extension of village water-works has been postponed until next spring. C. L. French is Village Pres. Bond issue of $15,000 was recently voted.

PROCTOR, VT.—Vermont Marble Co. has offered to give to the town of Rutland a complete fire department and to maintain the same if the city of Rutland will extend its water mains so that the town can get its supply from that source.

WILMINGTON, VT.—We are informed that construction of proposed water-works for this village, for which $20,000 bond issue was recently voted, is in hands of Village Water Commissioners. E. E. Wheeler, Member. Our informant was of the impression that the supplies had already been purchased. George J. Bond, Searsb[illegible], Vt., is Des. Engr.

OXFORD, MASS.—Town meeting was held Oct. [illegible] to take action in accepting legislative act incorporating Oxford Water Co.

WALTHAM, MASS.—Tests have been under way for some time, looking to securing increased water supply for this city, and Aldermen recently voted additional appropriation of $2,000 with which to continue the work.

WESTPORT, CONN.—Westport Fire District, Th[illegible] C. Sterns, Chn., is stated to be considering purchase of plant of Westport Water & Electric Light Co., for $125,[illegible]

BLOOMINGDALE, N. Y.—Installation of water-works and sewerage discussed.

FORESTPORT, N. Y.—Referring to fact that this village voted Oct. 8 to issue $22,000 of bonds for installing water-works, Albert Harrig, Village Pres., writes that contract for the work has been let to Coughlin & S[illegible] Co., White Lake Corners, N. Y., and that the plant is now under construction. W. G. Stone & Son, Utica, N. Y., were Des. Engrs.

NEW YORK, N. Y.—Bids are asked by Commissioner Water Supply, Gas and Electricity, 13 Park Row, until Nov. 2 for furnishing, delivering and laying water mains in several streets in the Boroughs of Manhattan and the Bronx. Bids also asked for furnishing, delivering and laying 20-in. water main in various streets in Borough of Brooklyn, and for furnishing materials, delivering and erecting two surface condensers and appurtenances at Pumping Station No. 1, and one surface condenser and appurtenances at Flushing Pumping Station. John T. Oakley, Comr.

SENECA FALLS, N. Y.—Report of special committee recommends construction of municipal water-works for this place. Installation of pumping plant at Cayuga Lake is recommended. Estimated cost of proposed water-works is $110,000. Matter will probably be voted on. J. F. Witner, Buffalo, N. Y., was Engr. of Committee.

BAYONNE, N. J.—Council let contract Oct. 18 for laying auxiliary main to Constable Hook to M. T. Connolly Contracting Co., for about $6,292.

BORDENTOWN, N. J.—On Oct. 22 Board Water Commissioners awarded contract for constructing water-works to Hugh J. Reilly, Jr., 22 E. 21st St., New York, for $66,157. Itemized bids for this work are given under Contract Prices in this issue.

JERSEY CITY, N. J.—Lamar Land & Irrigation Co. has been incorporated; capital is $50,000, and Francis H. Bergen and John D. Mullin, Jr., 15 Exchange Pl., are among incorporators.

GROVE CITY, PA.—Special election is to be held Nov. 29 to vote on issue of $12,000 of bonds for extending water system.

HASTINGS, PA.—Borough Council is stated to have let contract amounting to about $13,000 to Hahn & Hewitt, Geneva, O., for furnishing pump, valves, pipe, etc., for this borough. It is likely that contract for constructing projected reservoir will not be let until next spring.

LANCASTER, PA.—Special Water Commission has let contract for constructing gate house at pumping station to George H. Oster, for $2,468.

LEBANON, PA.—We are informed that the city is preparing to vote on the question of an increase in indebtedness for the purpose of putting in larger water mains and pipes. T. R. Carroll is Cy. Engr.

PHILADELPHIA, PA.—Council Water Committee has approved item to appropriate $305,000 to increase water supply of West Philadelphia. Item is contained in 1905 estimate of Water Bureau.

WASHINGTON, D. C.—Following bids were received by Isthmian Canal Commission Oct. 20 for furnishing valves and hydrants for use in Panama: Fairbanks Co., Baltimore, Md., $5,375.40, f. o. b. New York. Eddy Valve Co., Waterford, N. Y., valves, $3,000; hydrants, $2,875. M. J. Drummond & Co., 142 Broadway, New York, $5,345. Manhattan Supply Co., New York, $6,499. Rensselaer Mfg. Co., Troy, N. Y., $6,110, f. o. b. Colon. C. W. Thomas, Junction Yard, Detroit, Mich., $6,000, goods manufactured by the Michigan Brass & Iron Works. Cuyler & Mohler, 311 Williams St., Baltimore, Md., $6,008, f. o. b. New York. Chapman Valve Mfg. Co., Indian Orchard, Mass., $5,690, f. o. b. New York. John Fox & Co., 253 Broadway, New York, $7,545.75. Loetzer Valve & Mfg. Co., Towanda, Pa., $5,568.50. Ludlow Valve Mfg. Co., Troy, N. Y., $5,690, f. o. b. New York. Risdon Iron Works, San Francisco, Cal., $6,305, f. o. b. Anen. James B. Clow & Son, Chicago, Ill., $4,550 (hydrants only). Camden Iron Works, Camden, N. J., $5,894, f. o. b. Colon. Kennedy Valve Mfg. Co., 57 Beekman St., New York, $6,250. Herron Pump & Foundry Co., Chattanooga, Tenn., $5,444.50, f. o. b. Colon. N. O. Nelson Mfg. Co., St. Louis, Mo., for 130 hydrants only, $3,925, f. o. b. Colon.

BERLIN, MD.—We are informed that a water plant will not be installed in this town for at least 18 months. Orlando Harrison is Mayor.

OXFORD, MD.—Town votes Nov. 8 on $20,000 bond issue for improved water supply.

MANCHESTER, VA.—Finance Committee, according to report, has recommended installation of two new pumps and 150 HP. boiler.

ROANOKE, VA.—Local reports state that there is some probability of plant of Vinton-Roanoke Water Co. being sold, in which case several improvements would be made.

SPARTANSBURG, N. C.—We are informed that Home Water Supply Co., J. B. Cleveland, Pres., is conducting negotiations for filter plant, machinery, material and work. J. L. Ludlow, Winston, N. C., is Engr.

COLUMBIA, S. C.—We are informed that plans for the water-works for this city are completed, and the beginning of construction only awaits the perfecting of arrangements for raising the necessary funds. A vote on a bond issue will probably be made. J. L. Ludlow, Winston, N. C., is Engr.

GREENVILLE, S. C.—We are informed that plans are now being prepared for several dams and reservoirs to increase gravity supply for this city. The plans will be ready

two months. The work will be done by the American Pipe Mfg. Co. J. W. Ledoux, Ch. Engr., Philadelphia, Pa., for the Paris Mountain Water Co.

AMERICUS, GA.—Local press reports state that some additions will have to be made to local water-works shortly. These may be construction of 500,000 gallon storage and installation of new air compressor.

CAMILLA, GA.—City voted, Oct. 12, to issue $20,000 bonds for putting in water-works.

COLUMBUS, GA.—Water Commissioners have requested the several companies organized for the purpose of selling sources of water supply to this place, to submit proposals.

DUBLIN, GA.—We are informed that this city will vote Oct. 25 on bond issue for use in extending city water-works. Estimated cost of work is $5,000.

CHATTANOOGA, TENN.—Committee of Hill City Business League, T. W. Stanfield, Chn., has received proposition from local water company for furnishing supply for Hill City. Proposition involves expenditure of about $20,000 and includes erection of pumping station and standpipe.

BARBOURVILLE, KY.—Local parties are promoting formation of water company to supply this place from the Cumberland River.

LOUISA, KY.—Bids will be opened at the First National Bank of Louisa, at 12 p m., Nov. 14, on the $8,000 issue of the Louisa Water Co.'s first mortgage 6% 15-year bonds. James L. Carry is Secy. and Treas. Louisa Water Co.

AKRON, O.—Council has adopted report favoring submitting to citizens matter of issuing $800,000 of bonds for municipal water-works. The Committee, of which J. W. Payne, Cy. Engr., was a member, estimates the cost of the system at $887,000, divided up as follows: Supply works, 20,000,000 gallons capacity, $29,000; filter works, 10,000,000 gallons capacity, $100,000; buildings, $25,000; machinery, $100,000; boilers, 800 HP., $12,000; force mains, five miles 30 in. pipes, $180,000; stand pipes, two, 30 ft. diameter, 100 ft. high, $35,000; distribution, 80 miles, $400,000; real estate, $15,000.

CLYDE, O.—This city, according to reports, will install two new boilers at water-works. Chas. Scholey is Mayor.

CINCINNATI, O.—Keeling & Ridge, Pittsburg, Pa., signed the contract, Oct. 11, with the Water-Works Commissioners for completing reservoirs, etc., at California, O. Contract price was $719,821. Itemized bids for the works, which were received Sept 9, were given under Contract Prices in our issue of Sept. 22.

CLEVELAND, O.—We are informed that it will be several months before plans and specifications are completed for Cleveland Heights proposed water supply. First Asst. Mgr., City Water Dept., is official in charge.

COLUMBUS, O.—This city is to vote on $1,200,000 bond issue this fall for water-works improvements. It is proposed to expend this sum as follows: Filtration and softening, $380,000; pumping plant and station, $494,700; special castings and pipe, $7,700; standpipes, $33,550; distribution system, $284,050.

COVINGTON, O.—J. Guy O'Donnell, Clk. Bd. Trus. Pub. Affairs, writes us that contract for constructing water-works system, bids for which were received Oct. 12, has been let to T. A. Hardman, Olney, Ill. Est. cost is about $27,000. Machinery to be used will be obtained from following firms: Power pumps, John MsGowan Co., Cincinnati, O.; gasoline engine, Wooley Foundry & Machine Co., Anderson, Ind.; pipe, U. S. Cast Iron Pipe & Foundry Co.; hydrants and valves, Barbour Copper & Brass Works, Cincinnati, O.; tower, Chicago Bridge & Iron Co., Chicago, Ill.

ELYRIA, O.—City is stated to have taken steps for purchase of 5,000,000 gallon pump. H. M. Andress is member Bd. Pub. Service.

PORTSMOUTH, O.—We are informed that L. E. Chapin, of Chapin & Knowles, Pittsburg, Pa., has been employed to make an investigation and report plans and specifications for municipal water-works to the Council Committee. This is to be done preliminary to legislation by that body leading to issuing of bonds, advertising for bids, etc. J. W. Smith is Chn. Council Com.

EUREKA, ILL.—We are informed that this city is considering installation of new steel tower and tank. B. D. Meek is Mayor.

LINCOLN, ILL.—Lincoln Water & Light Co., Whitney Conant, Secy., will, it is stated, issue $200,000 of bonds.

ASHLAND, WIS.—Bids are asked by W. A. Jones, Comr., Indian Affairs, Washington, D. C., until Nov. 15 for constructing water system at Lac du Flambeau School.

GREEN BAY, WIS.—Reported that W. G. Kirchoffer, Consult. Engr., Madison, Wis., to to prepare plans and specifications for new water-works system for this place.

WEST ALLIS, WIS.—City has voted against issuing $50,000 of bonds for establishing water-works, and will probably seek a supply from Milwaukee.

MUSCATINE, IA.—City voted Oct. 10 in favor of securing pure water supply by sinking wells.

EVELETH, MINN.—Bids are asked until 8 p. m., Oct. 28, for following connected with construction of present water supply system: One direct action compound condensing pump; one cross-compound condensing flywheel pump; two 130-HP. boilers, all the necessary piping, fittings, valves, pipe covering, etc., to connect up pumps and boilers with each other; 15,000 ft. of 10-in. cast-iron pipe for a 500-ft. head; unloading, hauling and laying, including lead, yarn, etc., of 14,000 ft. of 10-in. c.-i. pipe, including all excavation, bridging, backfilling, etc., together with the building of an intake into the lake of same sized pipe and its masonry foundations; building of a pump and boiler house, 50 × 30 ft., of brick, and a brick chimney. Plans, etc., at office of Louis Larson, Cy. Clk., and at office of engineer, 312 and 313 Torry Bldg., Duluth, Minn. (Readvertisement.)

SOUTH ST. PAUL, MINN.—We are informed that all bids received Sept. 17 for laying water mains in various streets were rejected. C. W. Clarke is Cy. Recdr.

WINTHROP, MINN.—Village Council is asking bids until Nov. 5 for purchase of $7,000 water-works and electric light bonds. C. A. Schilling is Village Recdr.

FERGUS FALLS, MINN.—Council Committee was to report Oct. 14 on purchase of local water-works.

St. PAUL, MINN.—County Commissioners will probably call for bids for installing pumping plant at Well No. 2 at White Bear Lake.

TOPEKA, KAN.—Litigation over the local water-works plant is stated to have been cleared up, so that city can now purchase the works, for which a bond issue of $620,000 has already been voted.

KANSAS CITY, KAN.—Nelson Morris Packing Co., which is building new plant near Riverside, is seeking to have city lay mains to the site, according to reports.

BERESFORD, S. DAK.—Bids are asked by City Council until 8 p. m. Nov. 1 for material and construction of about 4,000 ft. of water mains. H. A. Sturges, Cy. Audr.

LIVINGSTON, MONT.—T. M. Swindlehurst has applied for a water and light franchise here. George H. Hill, Helena, Mont., is also an applicant for a similar franchise.

PINE BLUFF, ARK.—Municipal works agitated.

MORRILLTON, ARK.—Jacob Baer, of Kansas City, Mo., is stated to be figuring on establishing water-works here.

EL PASO, TEX.—Council has passed ordinance granting Capt. Charles Davis franchise for water-works, supply to be obtained from Sacramento Mountains or from the Mesa or from both.

EAGLE LAKE, TEX.—We are informed that Eagle Lake Water Co., T. L. Smith, Mgr., wants prices on 200 tons 4-in., 6-in. and 8-in. c. i. pipe, 15 hydrants, gate valves and specials and one 40-HP. return tubular boiler. A 12 in. × 7 in. × 10 in. × 12 in. compound duplex pump and a 10 in. × 7 in. × 10 in. pump are to be installed, also a 120 ft. × 12 ft. standpipe. Source of supply is to be from wells, and est. cost is $15,000.

COLORADO CITY, COLO.—Ordinance has been before Councils calling for election, Nov. 22, to vote on municipal water-works. Proposition has been made by H. I. Reid and associates to furnish city with complete system, to cost not more than $300,000.

DENVER, COLO.—Great Western Reservoir & Ditch Co. has been incorporated. Capital is $60,000, and Adolph J. Zang, Geo. H. Kaub and Edw. L. Rogers are incorporators.

BELLINGHAM, WASH.—Council may be petitioned to expend $115,000 for complete water system for south end of city.

HILLYARD, WASH.—Local Board of Trade, according to reports, is working for granting of water construction franchise.

SEATTLE, WASH.—Resolution has been passed by Council calling for laying of six or seven miles of pipe line to supply a portion of the Green Lake District. R. H. Thomson is Cy. Engr.

County Commissioners have granted E. D. Phelps a franchise to lay a water main from the city into the Maple donation claim just south of the city.

FORT WRIGHT, WASH.—Bids are asked until Nov. 16 for constructing stone reservoir of 500,000 gallons capacity, and pump-house, installing motor-driven triplex pump and laying connecting water mains at Fort Wright. Capt. Edw. A. Shuttleworth, Q. M.

CORVALLIS, ORE.—Local reports state that Council Committee has been appointed to take steps toward installing mountain water system. One bid had been received, and, according to the report, the Committee will receive as many other propositions as possible.

PORTLAND, ORE.—Bids are asked by Frank T. Dodge, Supt. Water Dept., until 3 p. m., Oct. 31, for furnishing and delivering 1,600 ½-in. corporation cocks, 400 ⅝-in. corporation cocks; 1,000 ft. 4-in., 16,400 ft. 6-in., and 12,000 ft. 8-in. cast-iron pipe, and 20,000 lbs. special castings and gate valves.

KERN, CAL.—Election may be held to vote on bond issue for municipal water-works.

MOUNTAIN VIEW, CAL.—Bids are asked by Town Trustees until Nov. 9 for the construction of water-works. W. J. Van Doren, Town Clk.

OAKLAND, CAL.—At a meeting of Council Oct. 10 six propositions were submitted for furnishing municipal water supply. George W. Dornin, Pres. Council, submitted a proposition, which could be carried out at an estimated cost of about $3,200,000.

OAKLAND, CAL.—Council has adopted resolutions requesting Board Public Works to furnish plans and estimate of cost for salt water pumping plant to provide water for street sprinkling, etc.; cost is not to exceed $10,000.

ORANGE, CAL.—Election may be held to vote on issuing about $50,000 of bonds to provide municipal water supply and adequate fire protection.

PASADENA, CAL.—Special election may be held this year to vote on bond issue for acquiring the water system.

REDWOOD CITY, CAL.—City Trustees have adopted ordinance providing for $35,000 bond issue for securing water pipe for municipal water-works system and extension, construction and reconstruction of water-works system in streets. D. R. Stafford is Town Clk.

REDDING, CAL.—E. B. Cushman has appropriated 3,000 inches of water to be taken from Main Creek Ravine and conveyed to Portuguese Flat, to be used in irrigating, creating power and mining.

SAN BERNARDINO, CAL.—Arrowhead Reservoir Co., Victor Smith, Mgr., is stated to have let contract, Oct. 13, to W. S. Hosking Co., Ocean Park, Cal., for driving a 3,732 ft. long tunnel. Contract also includes making open cuts, amounting to 1,080 ft. The contract amounts to about $50,000; itemized bids for the work, according to press reports, are given under Contract Prices. This is stated to be but a part of a large amount of irrigation work which is planned by the company.

SAN DIEGO, CAL.—Council is to be petitioned to extend water and sewer mains to Golden Hill and Brooklyn Heights, and also to relay the 30th St. water main.

SANTA ANA, CAL.—S. H. Finley, Pres. Bd. Trus., writes that election has been called to vote on $100,000 bond issue, proceeds of which are to be used to add new pumps and pipe line to municipal water system. After bonds have been voted and sold, plans will be completed and contracts let.

SAUSALITO, CAL.—Bond issue contemplated for furnishing city with water supply.

SEBASTOPOL, CAL.—Election may be called to vote on bond issue for water and sewer system.

PRICE, UTAH.—Surveys are reported under way for irrigation canals near Green River. L. C. Kelsey, Salt Lake City, Utah, is one of the Engrs.

PORT FALLS, IDAHO.—A. M. Martin, owner local water-works, proposes, it is stated, to install new pump. Storage tank will be built also.

NEZ PERCE, IDAHO.—J. F. Maegher, Spokane, Wash., received contract from Z. A. Johnson Oct. 12 for furnishing the joint iron pipe for the new water-works system, and also for all fire hydrants. Contract calls for delivery of pipe within 30 Days. Plant complete will cost $20,000.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

WARDNER, IDAHO.—City council has passed an ordinance granting Bunker Hill & Sullivan Mining & Concentrating Co. franchise for a water supply system, mainly to supply fire protection for their concentrator at Kellogg, but also to supply the city if needed. Mains in Wardner are to be 10 ins., and in Kellogg 8 ins.

SEWERAGE.

BEVERLY, MASS.—R. L. Fosburg & Sons were awarded contract for excavating site for reservoir and wells to be built in connection with sewage station, at $9,050. Plant will be on Elliott St.

$12,500 has been appropriated for purchase of site and for erecting pumping station and for completion of sewer work at United Shoe Machinery Co.'s plant.

BOSTON, MASS.—Council has passed order appropriating $600,000 for separate surface drainage and sanitary sewers. James Donovan is Supt. of Streets.

WATERBURY, CONN.—Contract for East Willow St. sewer was awarded to Edward McManus at $8,940.

FULTON, N. Y.—W. S. Farrington, Constructing Engr., Syracuse, N. Y., informs us that Frank Pidgeon, of Saugerties, N. Y., was awarded contract for 10,000 ft. of sanitary sewers, 8 to 20-in., and for 8 to 30-ft. trenching, at $23,000.

PERTH AMBOY, N. J.—Bids are asked until Nov. 7, 8.30 p. m., for constructing State St. sewer. Matthew Weirup, St. Comr.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., Nov. 2, for building three sewers. Approximate quantities as follows: 4,744 ft. of 12 to 36-in. sewer, 44 manholes, 14 sewer basins, planking, bracing, concrete work, etc. Martin W. Littleton, Boro. Pres.

NEWARK, N. J. (Irvington Station).—Bids were received Oct. 18 by M. Stockman, Town Clk., for extension of sewer system. Approximate quantities, 37,216 ft. 8 and 10-in. pipe sewer, 2,645 8 and 10-in. branches, 108 manholes, and 29 flush tanks. Charles Ippolito, of Orange, was awarded contract for section 3, at $11,221; section 4, Antonio Costa, Orange, at $8,740; section 5, James Christy, Newark, at $11,453. Alexander Potter, 143 Liberty St., New York, is Engr.

McKEES ROCKS, PA.—Separate bids are asked until Nov. 7 for constructing 1,110 ft. of 10, 12, 15 and 20-in. sewer. S. L. Gardner is Boro. Engr.

HOLLYBEACH, PA.—Bids are asked until 8 p. m., Nov. 1, for constructing a sewer system. H. S. Hewitt, Boro. Clk.

WILKESBARRE, PA.—$130,500 is included in $408,000 loan proposition that is to be submitted at general election. Charles McHugh is Cy. Solicitor.

WASHINGTON, D. C.—Bids were received for supplying vitrified sewer pipe and cement sewer pipe to Isthmian Canal Commission as follows, according to reports: M. J. Drummond & Co., 182 Broadway, New York, $25,458; to commence delivery in 30 days and complete in 60 days at Colon. Montague & Co., Washington, D. C., 4-in. pipe, 10 cts.; 6-in., 15 cts.; 8-in., 22 cts.; 12-in. 45 cts.; 15-in., 75 cts.; 8 × 6-in. Y branches, $1.10; 12 × 6 do., $2.25; 15 × 6-in. do., $3.75; 8 × 4-in. do., $1.10; 12 × 4-in. do., $2.25; 15 × 4-in. do., $3.75; 6-in. bends, 55 cts.; 4-in. do., 33 cts.; 18-in. vitrified pipe, $1; 24-in. do., $1.75; 18 × 4-in. Y branches, $5; 24 × 4-in. do., $8.75. W. S. Dickey, 217 New York Life Bldg., Kansas City, Mo., $22,261. Carnegie Brick & Pottery Co., 328 Montgomery St., San Francisco, Cal., $24,682; delivery f. o. b. Laboca in 90 days. Granite Clay Co., South Forge, Akron, O., $47,744. Blackner & Post Pipe Co., St. Louis, Mo., submitted irregular bid. William Wirt Clark & Sons, Baltimore, Md., bill of material No. 1, $11,393; No. 2, $2,727. American Sewer Pipe Co., Pittsburg, Pa., $19,269.

JACKSONVILLE, FLA.—Bids are asked until 3 p. m., Nov. 4 by Trustees Water-Works and Improvement Bonds for furnishing all material and laying about 428 ft. of 36-in., 236 ft. of 30-in., 3,622 ft. of 24-in. brick drains, and 1,269 ft. of terra cotta drain and building manholes. For specifications and other information apply to R. N. Ellis, C. E., Supt. B. F. Dillon, Chn.

JASPER, ALA.—Council has ordered an election to be held Nov. 14 for purpose of voting $15,000 of bonds to construct sanitary sewer system. Address Mayor Cranford.

DAYTON, O.—Ordinances have been passed by Council appropriating $3,000 for a storm water sewer in Oak St.; $9,300 for sewer in Jersey St.; $2,800 for sewer in Wyoming St.; $900 for sewer in Duncan Ave., and $900 for one in St. Joseph Ave. C. P. Flloyd is Cy. Clk.

LIMA, O.—Bids are asked until Oct. 31, 12 o'clock, for building vitrified tile sewers. R. H. Gamble, Ch. Engr. Bd. Pub. Service.

CINCINNATI, O.—Bids are asked until noon, Nov. 4 for constructing several sewers. Geo. F. Holmes, Clk Bd. Pub. Service.

CLEVELAND, O.—Bids are asked until Oct. 31 for purchase of $184,000 of sewer bonds. J. P. Madrigan, Cy. Audr.

CINCINNATI, O.—Contract for building sewer in Sylvan Ave. has been awarded by Board Public Service to T. P. Strack, at $19,630. Geo. F. Holmes, Clk.

INDIANAPOLIS, IND.—City Engineer Jeup and Capt. Cheatham are considering the construction of a sewer to join the city system to dispose of the sewage from new army post nearby. Probable cost of work is $40,000.

LANSING, MICH.—W. H. McKale was awarded the contract for constructing sewers in Pensylvania Ave. and Pine, Larned and St. Joseph Sts., at $3,646. H. A. Collar is Cy. Engr.

PEORIA, ILL.—Harding & Nelson, of Racine, Wis., were awarded contract for North Peoria sewer, at $87,969. Other bidders were: C. W. O'Neill, $87,594; Crescent Stone Co., $95,067; W. S. Wall & Sons, $88,015; John Green, $88,327.

CHICAGO, ILL.—Bids were received on Oct. 15 by F. W. Blocki, Comr. Pub. Works, for brick and concrete masonry required for constructing 39th St. pumping station, as follows: Roemheld & Gallery, 719 Chamber Commerce Bldg., $54,000; John A. Larson & Co., 122 La Salle St., $55,489. Siebold & Neurnkirchen, 1690 Brompton Ave., were awarded contract at $46,585.

MENASHA, WIS.—$20,000 will be expended for sewer work this fall and next spring.

MILWAUKEE, WIS.—Bids are asked until Oct. 28, 10.30 a. m., for building pipe sewer in Barclay St. Charles Poetsch, Comr. Pub. Wks.

WATERTOWN, WIS.—Bids are asked until 10 a. m., Nov. 5 for constructing a sewer, comprising, approximately, 1,065 ft. of 10-in. pipe and three manholes. Arthur Mulberger, Cy. Atty.; Frank S. Weber, Cy. Clk.; E. B. Parsons, Cy. Engr.

ST. PAUL, MINN.—Contract for sewer in Mount Airy St. was awarded to Christ Johnson, at $1,335.

OMAHA, NEB.—Bids are asked until 2 p. m., Nov. 4 for construction of sewer in Sewer District No. 300. Andrew Rosewater, Chn. Bd. Pub. Wks.

FORT LEAVENWORTH, KAN.—James and Charles Stanton, 601 Kiowa St., Leavenworth, were awarded contract at $1,290 for construction of sewers and water drain. D. E. McCarthy, Q. M.

KANSAS CITY, MO.—Bids are asked until Oct. 27 by D. W. Pike, Cy. Engr., for constructing sewers in joint sewer districts 258 to 263, including 1,580 ft. brick sewer, at cost of $13,000; districts 250, 251 and 295, including 2,400 ft. brick sewer, cost, $21,000; Nos. 184 to 269 and 270, including 1,200 ft. pipe sewer, cost $4,500; Nos. 250, 251, 265 and 266, including 1,900 ft. brick sewer, cost, $12,000; and Nos. 231, 256, 267 and 268, including 3,000 ft. brick, and 1,100 ft. pipe sewer, cost, $25,000.

LAWTON, OKLA.—J. R. Severns, of Guthrie, has contract for the construction of a sanitary sewer system in Lawton. It is expected that work will begin at once.

ANADARKO, OKLA.—City Council has awarded contract for constructing complete sanitary sewer system to Doyle & Schwartz, of Colorado Springs, at $19,120. Work is to begin within 30 days.

PORTLAND, ORE.—Irvington district sewer will be built as soon as contracts are awarded. It will cost $125,000.

Council has given notice of intention to build Sandy Road sewer. Estimated cost, $4,218. Thomas C. Devlin is Cy. Audr.

DENVER, COLO.—Board of Public Works will construct storm sewers in sub-districts Nos. 8 and 12 of Capital Hill Storm Sewer District No. 1. Cost, $24,000.

Board of Public Works has recommended to Council the construction of the Colfax Ave. special sanitary storm sewer, for which plans are under way. Estimates of the engineer place the cost at $50,428.

SACRAMENTO, CAL.—$80,000 of bonds will be issued for a trunk line sewer and $85,000 for levees.

VANCOUVER, B. C.—City Council has awarded contract for construction of a septic tank at Burrard St. to Armstrong, Morrison & Co., at $5,850.

VACAVILLE, CAL.—$65,000 of bonds will be issued if favorably voted at coming election. $25,000 will be used for sewer system and $40,000 for light and water plant.

NIAGARA FALLS, ONT.—Contract for section 14 of sewer system was awarded to Fraser & Ward, at $10,280.

GARBAGE DISPOSAL—STREET CLEANING

NEW YORK, N. Y.—Bids are asked by Board of Health, corner 55th St. and 6th Ave., until Nov. 7 for furnishing all the labor and furnishing all the materials necessary or required for the removal of night soil, offal and dead animals from the city of New York, all boroughs, during the years 1905, 1906, 1907, 1908 and 1909, contract to be awarded as a whole or by each borough separately, as the Board may decide is for the best interests of the city. Thomas Darlington, M. D., Pres.

EAST ORANGE, N. J.—Board of Health has been discussing erection of garbage crematory.

WILKINSBURG, PA.—Pittsburg Crematory Company is stated to have asked this borough for franchise for removal of garbage.

DANVILLE, ILL.—Erection of garbage plant for disposal of city garbage is under consideration, according to reports.

DULUTH, MINN.—D. D. Murray, Health Comr., has returned from a tour of investigation of various garbage plants, and a local press report quotes him as saying that in his opinion this city could operate a garbage incinerator for very little more than is expended in carting garbage to a dump.

PORTLAND, ORE.—Dr. J. F. Bell, of City Board of Health, has been securing information regarding garbage disposal, and this city may establish municipal garbage department.

BELLINGHAM, WASH.—Board of Health, according to report, is to recommend erection of two garbage plants, patterned after those in use in Vancouver.

TORONTO, ONT.—Street Commissioner Jones has recommended erection of two garbage crematories in this city.

STREETS AND ROADS.

ENFIELD, N. H.—Bids are asked by Board of Selectmen until Oct. 29, 2 p. m., for construction of 2¼ miles public highway.

WOONSOCKET, R. I.—Main St. will not be paved until next spring.

HARTFORD, CONN.—Highway Commissioner Macdonald has awarded to town of Simsbury the contract for improvement of two sections of its highways, known as Avon and Weatogue roads. The aggregate length of the two sections is 5,229 ft., and amount of appropriation is $5,670.

LITCHFIELD, CONN.—Bids are asked by Board of Selectmen until Oct. 28, 3 p. m., for grading and constructing a section of road.

HARTFORD, CONN.—Highway Commissioner Macdonald awarded the contract for four sections of gravel road in Plainfield to John J. Fitzpatrick, of Plattsburg, N. Y., for $5,670. Contract for macadam road in Windsor Locks was awarded to C. H. Kelleher, of Boston, Mass. Cost, $5,669.

BOSTON, MASS.—Coleman Bros., of Everett, Mass., were awarded the contract for laying about 13,000 sq. yds. paving at navy yard. Cost, $37,000. Work to begin at once.

TROY, N. Y.—Bids are asked by Board of Contract and Supply, 21 City Hall, until Oct. 28, 11 a. m., for surfacing roadway of Second St. with sheet asphalt and curbing and grading. James I. Riley, Clk.

BROOKLYN, N. Y.—Bids are asked by Martin W. Littleton, Boro. Pres., until Nov. 2, 11 a. m., for regulating and paving with asphalt on several streets.

BROOKLYN, N. Y.—Bids are asked by Commissioners of Parks, Fifth Ave. and 64th St., New York, until Nov. 3, 3 p. m., for building a roadway and walks in rear of Institute of Arts and Sciences, Borough of Brooklyn. John J. Pallas, Pres.

BINGHAMTON, N. Y.—Press reports state that bids will soon be received by City Clerk for asphalt repairs which will be necessary in the city next summer.

NEW YORK, N. Y.—Bids are asked by John F. Ahearn, Pres. Boro. Manhattan, until Oct. 31, 3 p. m., for regulating and repaving with asphalt on several streets.

LONG ISLAND CITY, N. Y.—Bids are asked by Joseph Cassidy, Pres. Boro. of Queens, until 11 a. m., for regulating, grading and paving with asphalt the roadway of Jamaica Ave., Sixth Ave. and Marc Place.

CAMDEN, N. J.—An ordinance directing the repairing of Seventh St. with sheet asphaltum was passed by City Council. H. C. Kramer is Clk.

READING, PA.—City Engineer was directed by Board Public Works to improve highways to the extent of $14,000.

MONTOOTH, PA.—Bids are asked until Nov. 3 for grading, paving and curbing of Littell Ave. Geo. C. Wolfe, 29 Bigger Ave., City, is Boro. Clk.

TARENTUM, PA.—The Duster Contracting Co., City, was awarded contract for grading and paving of four streets at its bid of $30,000.

WASHINGTON, D. C.—The Commissioners have ordered that Florida Ave., N. E., be paved with asphalt. Est. cost, $15,000. Work to be done by the Cranford Paving Co.

PARKERSBURG, W. VA.—We are informed that Board Public Works has let contract for paving several streets with brick to Camden Clay Co., Spilman, W. Va., for $23,-385. Jesse L. Cramer is Cy. Audr.

ATLANTA, GA.—Bids are asked by City Clerk until Nov. 7 for paving Mitchell St. with asphalt, approximately 4,500 sq. yds., and for paving Madison Ave. with granite blocks, approximately 2,250 sq. yds. R. M. Clayton, Cy. Engr.

EAST LAKE, ALA.—M. M. Barrett, Cy. Clk., informs us that no contracts have yet been let for the proposed street and sidewalk improvements. J. D. Truss is Cy. Engr.

NEW IBERIA, LA.—Bids are asked until Oct. 31 by Board of Trustees for constructing approximately 88,700 sq. ft. concrete sidewalk and 38,000 lin. ft. concrete curb. V. P. Guilfoux, Cy. Engr.

JOHNSTOWN CITY, TENN.—County Commissioners will build two or three miles of road next year.

LOUISVILLE, KY.—The Board Public Works contemplate the improvement of Letterie Ave. with asphalt paving. Work will probably be done next spring.

CINCINNATI, O.—Linwood Ave. is to be converted into a boulevard. Mayor Fleischmann sent a written request to Board Public Service asking that plans be prepared.

CINCINNATI, O.—Bids are asked for 6,000 cu. yds. of grading. Henkel & Sullivan, 621 Main St. (Advertised, Engineering News.)

COLUMBUS, O.—Schiller and Worthington Sts. are to be paved with brick. John T. Barr is Clk. of Council.

HAMILTON, O.—Bids are asked by Board Public Service until Nov. 4 for repairing surface of High and Main Sts. with block asphalt. John B. Connaughton, Clk.

CLEVELAND, O.—Bids are asked by Board Public Service until Nov. 3 for paving with brick the roadway of bridge over Big Four tracks at Denison Ave. Plans and specifications may be seen at office of Chief Engineer. A. R. Callow, Secy.

STEUBENVILLE, O.—Wm. H. Trainer, Cy. Clk., announced that the Council has decided to curb and pave Seventh, Sixth and Benton Sts. with brick.

AKRON, O.—Council has passed a resolution providing for the grading, curbing and paving with brick on Spicer St. Ray F. Hamlin is Clk. of Council.

CINCINNATI, O.—Property is being appropriated for the purpose of widening, extending and opening Boudinot Ave. and Townsom St.

YOUNGSTOWN, O.—Bids are asked by Board Public Service until Nov. 1 for grading Mercer St. G. T. Prosser, Clk.

LANCASTER, O.—Land has been appropriated for extending East Chestnut St.

DAYTON, O.—Bids are asked by Board of Public Service until Nov. 1 for paving with cement unfinished sidewalks in 11 streets.

BRAZIL, IND.—Bids are asked by County Commissioners until Nov. 10 for constructing a road in Jackson township by grading and graveling, in all about 16,612 ft. J. Frank Smith, County Audr.

SPENCER, IND.—Bids are asked by Geo. O. Mitten, County Audr., until Oct. 31 for grading and macadamizing certain highways in Washington township, in all about eight miles. Est. cost, $15,836.

INDIANAPOLIS, IND.—Bids are asked by Board Public Works until Nov. 14 for the opening of a street west of White River, and construction of a street and levee.

ELWOOD, IND.—A. L. Hiatt, superintendent of construction of the Wardwell gravel road, four miles in length, located in Boone and Duck Creek townships, has awarded the contract for work to Harbit & Co., City, for $10,500.

ESCANABA, MICH.—Common Council will expend more than $162,000 the coming year on street improvements. Ludington St. will be paved with vitrified brick.

JOLIET, ILL.—An ordinance was passed by City Council directing the improvement of Center St. by grading and paving with limestone macadam. Matt Berscheid is Cy. Clk.

PAXTON, ILL.—The proposed paving of five blocks in the city has been postponed until spring. The bids for the work were too high, the bids being $1.42 per sq. yd., while the estimate was but $1.40.

BEECHER, ILL.—The McLaughlin-Mateer Co., of Kankakee, Ill., has the contract to build over 10,000 sq. ft. concrete walks here.

DES MOINES, IA.—City officials are planning for the laying of eight blocks of asphalt paving on Newcomb and Ingersoll Aves.

DES MOINES, IA.—A resolution will soon be introduced in Council by Alderman A. L. Smith for asphalt paving on Harrison Ave.

OTTUMWA, IA.—Bids are asked by City Clerk until Oct. 28, 8 p. m., for resurfacing Second St.

DES MOINES, IA.—Bids are asked by Board Public Works until Nov. 7 for paving with vitrified brick on 6-in. concrete foundation the alley between Fourth and Fifth Sts., in all about 1,050 sq. yds. W. W. Wise, Chn.

HUTCHINSON, KAN.—City Council has ordered eight blocks of street paving on Sherman St.

GREAT FALLS, MONT.—Matter of repaving some of the streets of this city is under consideration. D. L. Ellis is Cy. Engr.

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KANSAS CITY, MO.—A petition has been presented to County Court for macadamizing Holmes Park road.

WEBB CITY, MO.—Bids are asked until Nov. 7 for furnishing the labor and material and constructing about 17,-439 sq. yds. of brick pavement. W. E. Smith, Cy. Engr. (Advertised, Engineering News.)

ST. LOUIS, MO.—The following street improvements were let by Board Public Improvements: Warne Ave., $16,917; St. Ferdinand St., $22,596; Blair Ave., [illegible]; Von Phul Ave., $10,309, all to Fruin-Colnon Co.; [illegible] Ave., Stranke Const. Co., $10,025; Bremen Ave., H. Ruecking, $6,606.

BEAUMONT, TEX.—Commissioners' Court has awarded contract to Myrick Bros. Co. to furnish shell for county roads. The court recently ordered a bond issue of [illegible],000, the proceeds of which are to be expended on county roads.

OAKLAND, CAL.—The Auditing and Finance Committee has recommended the appropriation of $15,000 for the improvement of Harrison St. boulevard.

SAN FRANCISCO, CAL.—Sealed bids will be received Nov. 21 by Board of Supervisors for $243,000 street bonds and $740,000 children's playground bonds. Chas. W. Fay, Clk.

MANUFACTURING PLANTS.

NEW HAVEN, CONN.—The Standard Bending & Art Glass Co. is building a new plant 32 × 64 ft., with an ell 16 × 26 ft., and proposes to erect another building 32 × [illegible] ft. It will be equipped with four glass-bending furnaces and automatic machinery.

NEW LONDON, CONN.—The Brown Cotton Gin Co. is to build an addition to its plant, 165 × 232 ft., to be devoted to assembling department and carpenter and paint shops.

NORWICH, CONN.—The silk manufacturing business of M. J. Green will be removed from Paterson, N. J., to Norwich, where a new mill will be erected 50 × 200 ft., two stories and basement.

SCHENECTADY, N. Y.—It is understood that Charles Mahony & Co., 126 South Center St., will erect a factory for the manufacture of cotton and woolen goods, etc.

SARANAC LAKE, N. Y.—The Adirondack Co. intends erecting a $75,000 plant on Woodruff St.

UTICA, N. Y.—We are informed that the Utica Steam & Mohawk Valley Cotton Mills, H. F. Mansfield, Supt., is not contemplating erection of new five-story mill, as was stated in recent news item in Engineering News.

BUFFALO, N. Y.—Dry coloring house and varnish storehouse of McLennan Paint Co. on Rano St. were destroyed by fire. Loss about $100,000. Will be rebuilt at once.

RICHFIELD SPRINGS, N. Y.—The contract for four-story brick addition, 50 × 120 ft. to the Waiontha Knitting Co.'s mill has been awarded to John F. Hughes Construction Co. An office building, 25 × 50 ft., will also be built. These additions will more than double the present capacity of mills.

UTICA, N. Y.—The Fuel Saving Co., recently incorporated, will manufacture patented inventions of S. P. Smith covering improvements in furnaces, boilers and ventilating apparatus. The plant has not been determined upon.

PASSAIC, N. J.—The Lyndhurst mills, recently destroyed by fire, will be rebuilt as soon as possible.

PHILLIPSBURG, N. J.—The American Sheet Iron Co. is having plans prepared for rebuilding their plant at this place.

MONTGOMERY, PA.—The Montgomery Table Co., care of Wm. Decker, has had work started for a new factory, to consist of five two-story buildings.

PITTSBURG, PA.—The Pitttsburg Construction Co. has been awarded a contract by the Pennsylvania Railroad for the erection of three new structures in Pittsburg. The power plant and repair shops will be of steel construction, while the Pullman building will be of stone and brick.

UNIONTOWN, PA.—The McConnell Wheel & Mine Supply Co., manufacturer of iron and brass castings and machine work, is contemplating making a large addition to its plant, plans for which have not yet fully matured.

INDIANA, PA.—Indiana Cold Storage & Ice Co. has been organized by Geo. W. Stewart, of Brush Valley, Pa.; R. N. Ray and John W. Luther, City. A cold storage plant of three stories, 60 × 100 ft., will be erected; also power and ice plant, 55 × 120 ft. Corey B. Comstock, Exchange Bldg., Union Stock Yards, Pittsburg, is Arch.

REYNOLDSVILLE, PA.—The American Production Co., care of Chas. McSherry, Gen. Mgr., City, contemplates the erection of a plant for the manufacture of mine cars and an extensive nickel-plating plant, 100 × 750 ft.

GROVE CITY, PA.—Brown & Eisenhoff, Clarion, Pa., have purchased site here and are contemplating the erection of a plant for manufacture of carbonated water.

AVONMORE, PA.—Stockholders of the Trimblin Engine & Foundry Co., of Creighton, have decided to accept offer made by Avonmore residents, and the works will be moved here. The stock will be increased $50,000.

BALTIMORE, MD.—James Stewart & Co., 319 North Charles St., have been awarded the contract for an addition to factory at 110 West Fayette St., for Wise Bros. Brick, stone and steel, seven stories, 25 × 109 ft.

RICHMOND, VA.—The R. A. Patterson Co. will rebuild its tobacco factory, recently burned. The insurance amounted to $100,000.

SHIPWITH, VA.—The Wills Cultivator Co. will erect a plant here.

BELINGTON, W. VA.—The shops of the Coal & Coke Railroad, owned by Henry G. Davis, were damaged by fire. Loss, $20,000.

ALBEMARLE, N. C.—The Sibley Mfg. Co. has been chartered with $25,000 capital to manufacture lumber, etc. Incorporators are: R. L. Sibley, W. T. Huckabee and W. T. Efird.

FAYETTEVILLE, N. C.—The cotton mill which W. D. Coleman proposes to erect here, at a cost of $500,000, is to contain 25,000 spindles and 750 looms.

HAW RIVER, N. C.—The Trollingwood Mfg. Co., limited capital $125,000, will erect a mill to start with 125 looms and 2,240 spindles, and will manufacture cottonades. The plant is located one mile from this place and will be run by steam. All orders for machinery have been placed. John A. Trolinger is Pres.

WINSTON-SALEM, N. C.—The United States Veneer Co. has broken ground for the erection of a plant here.

GREENSBORO, N. C.—It is proposed to organize a $100,000 stock company to build a cotton mill here.

MOUNT HOLLY, N. C.—S. B. Robertson intends to install a new foundry and it is understood is in the market for a complete equipment of machinery.

GASTONIA, N. C.—A new cotton mill, capitalized at $150,000 and having 10,000 spindles, will be established here. Geo. A. Gray, City, Supt. Loray Mill, is interested.

ATLANTA, GA.—Albert J. and Edward P. Wood, of Atlanta, and associates have applied for a charter for the American Bottle Seal Co, capital $100,000, to engage in a business of manufacturing, buying and selling machinery, appliances, bottles and other supplies, used by bottlers, and machinery, tools and supplies of all kinds.

STILLMORE, GA.—Geo. M. Brinson will erect an ice factory and will want equipment for same. Correspondence with manufacturers in this line is solicited.

ATLANTA, GA.—Storage plant of the Atlanta Ice & Coal Co. was damaged by fire. It will be rebuilt at once.

STATESBORO, GA.—The Bulloch Oil Mill will erect a new cotton gin at a cost of $6,000.

THOMASTON, GA.—D. O. Trammell's cotton gin, burned recently, will probably be rebuilt in the near future.

MOBILE, ALA.—P. P. Williams, of Memphis; W. H. Fitzhugh, of Vicksburg, Miss., and T. W. Hells, of St. Louis, will establish a grain elevator here. B. F. Flippen, City, can inform.

HUNTSVILLE, ALA.—A cotton rope and twine mill will probably be established here. W. L. Wellman can give information.

BIRMINGHAM, ALA.—The Yellow Pine Land Co., capital $50,000, has been chartered. The incorporators are: W. F. Monroe, Valdosta, Ga.; J. R. Saunders, Pensacola, Fla.; Chas. J. Haden, Atlanta, Ga., and others.

JACKSON, MISS.—J. Houch, of Springfield, Ill., will erect a $50,000 brick plant here, to have a daily output of 20,000 brick. The plant was secured through the efforts of Board of Trade.

PURVIS, MISS.—The Manor Mfg. & Realty Co., capital $10,000, has been chartered here to manufacture boxes, crates, etc. The incorporators are: C. J. Manor and J. A. Hearn.

JACKSON, MISS.—J. H. Halcomb, of Jennings, La., has purchased a site here for the erection of a brick manufacturing plant.

GREENVILLE, MISS.—A new furniture factory will be erected here by Humphreys & Scheske. Secretary of Young Men's Business League can inform.

COLUMBUS, MISS.—The Mansfield-Hill Mfg. Co. has been organized with $30,000 capital by C. W. Hill and J. B. Mansfield, of Birmingham, Ala. A manufacturing plant will be erected here at once.

PLAQUEMINE, LA.—The Louisiana Cooperage Co., capital $50,000, has been organized to erect a plant on Bayou Plaquemine. John A. Lanier is Pres.

NEW ORLEANS, LA.—Chas. E. Williams, of Franklin Milling Co., Franklin, O., will erect a $100,000 flouring mill in this city, four stories, 50 × 104 ft., to be completed by first of the year. The capacity of the plant will be 500 barrels a day. It will be a combination mill and will have an elevator with a capacity of 150,000 bu. Geo. M. Ahrons, of G. M. Ahrons & Co., is Mr. Williams' New Orleans agent.

NEW ORLEANS, LA.—The McClintic-Marshall Construction Co., of Pottstown, Pa., has been awarded the contract for steel work for coal handling plant here at its bid of $9,850.

KNOXVILLE, TENN.—Springer & Lister will establish a foundry and machine shop here. A site has been purchased.

NASHVILLE, TENN.—H. S. Price, of St. Louis, Mo., will establish a fertilizer factory in this city. Cost, $20,000.

MORRISTOWN, TENN.—A plant to be known as the Cap. Daily Foundry will be established here, with Cap. Daily, proprietor.

PADUCAH, KY.—Harness and saddle factory owned by E. Rohkopff & Co. was destroyed by fire. Loss, $50,000.

LOUISVILLE, KY.—H. E. Thompson, 228 Fifth St., will erect galvanized iron works and foundry and will manufacture a patented ventilator. The buildings will be 85 × 170 ft. and 180 × 85 ft., respectively, one and two stories high.

PARIS, KY.—Turner Wells and W. C. Taylor, of Frenchburg, will erect a planing mill here. Cost, $50,000.

CLEVELAND O.—The Peerless Motor Co. has broken ground for its new plant, to cover six acres, on the Nickel Plate Railway, near Oakdale St., in the east end of Cleveland. The new plant will have more than triple the capacity of the present plant.

KENT, O.—Seneca Chain Co. will build an addition to its plant.

TOLEDO, O.—The Banting Machine & Implement Co. has increased its capital stock from $75,000 to $225,000, and will erect a warehouse and repair shop on Monroe St.

TOLEDO, O.—The Toledo Metal Wheel Co. will erect a four-story addition to its plant at West Bancroft St. and Smead Ave. Work will be done by day labor.

TOLEDO, O.—The Mayo Life Boat Co. has been organized with a capital stock of $500,000, to manufacture a steel lifeboat, the invention of Robt. D. Mayo of Frankfort, Mich. The company is planning to erect a factory 60 × 240 ft., which, when equipped with machinery, will cost over $100,000.

CHICAGO, ILL.—The Walker & Elermann Mfg. Co. has secured a site on Fillmore St., west of Homan Ave., and will erect a factory there. Brick, 3 stories, 225 × 124 ft., mill construction. Cost, $100,000.

CHICAGO, ILL.—The National Steel Fitting Co. has been incorporated for the manufacture of patented seamless steel pipe fittings. Charles A. Dies is Pres.

JACKSONVILLE, ILL.—The Jacksonville Bridge & Iron Co. is adding to its plant a bridge erecting shop which will be 100 × 140 ft., of brick and steel construction. A 15-ton crane with 60-ft. span will be installed some time in the near future. A. T. Hawk, Chicago, is Arch.

ROCK ISLAND, IA.—The Tri-City Regalia Co. is to be reincorporated soon with a capital stock of $100,000. A new factory will be erected. W. A. Andresch is Pres.

TEXARKANA, ARK.—The Texarkana Casket Co. has increased its capital from $10,000 to $20,000.

FORT SMITH, ARK.—The Fort Smith Refrigerator Co. will erect a three-story brick addition to their plant.

CHICO, TEX.—The citizens of Wise, Montague and surrounding counties contemplate the erection of a cotton mill and dye works. Edward A. Dickenson, of this place, can give information.

SHERMAN, TEX.—A creamery will probably be established here. Address Secretary of Business Men's Club for information.

SAN ANTONIO, TEX.—Holmgreen Bros. will enlarge their iron foundry and make other improvements at a cost of $10,000.

WELEETKA, IND. T.—The Weleetka Cotton Oil Mill Co., capital $60,000, will erect an oil mill here.

CHECOTAH, IND. T.—The Midland Elevator Co., of Kansas City, Mo., will erect a grain elevator here, with a capacity for handling 5,000 bu. of grain daily.

MUSKOGEE, IND. T.—Power Refining Co. of Corsicana, Tex., will erect an oil refinery here. Cost, $50,000.

PAUL'S VALLEY, IND. T.—The Paul's Valley Compress Storage Co., capital $30,000, has been organized to erect a cotton compress. The organizers are: L. H. Love, R. J. Williams, J. N. Dodson and T. A. Thurmond, of Ardmore, and others. A site has been secured and work will commence in the near future.

ALVA, OKLA.—J. L. Grundy and others will erect a broom factory here.

SHAWNEE, OKLA.—The Western Brewing Co. will build a brewery in this city.

LAWTON, OKLA.—The Eagle Ice & Storage Co. will establish an ice factory here.

EL RENO, OKLA.—The Canadian County Mill & Elevator Co. will erect a 1,000-bbl. flouring mill here.

OKLAHOMA CITY, OKLA.—The Allison Cream Co. has been chartered with $20,000 cap. stock. The incorporators are: A. H. and M. E. Allison and J. C. Howe. The purpose is to buy or build creameries, ice cream factories and cold storage warehouses.

OKLAHOMA CITY, OKLA.—A casket factory will probably be located here. Address Secretary Commercial Club for information.

OKLAHOMA CITY, OKLA.—A $100,000 pants factory will probably be located here. Secretary of Commercial Club can inform.

POND CREEK, OKLA.—Epsworth & Shafter of Chicago will erect an ice factory at this place.

WATONGA, OKLA.—Harry E. Moore, of Billings, will erect an ice factory and crematory here.

SEATTLE, WASH.—R. M. Kalberg and B. F. Shaffer, of Bow, Wash., have bought the Sound Shingle Co.'s mill which was burned some time ago and will build a larger mill.

NEWPORT, WASH.—The Newport Brick & Lime Co. has been incorporated; capital stock, $100,000; directors, G. S. Thomas, Newport; A. S. Kelsey, Wm. Goodenough and J. M. Batton, of Hatton. Superintendent Toreble states that all money necessary to build plant and install machinery has been subscribed. Stiff mud and repress brick machinery with capacity of 30,000 daily, will be installed.

SOUTH BEND, WASH.—J. M. Carrick and S. S. Hyman, of San Francisco, will build a new mill at this place with capacity of 75,000 ft. per day. Mr. Carrick is Pres. Columbia Box & Lumber Co., operating here. Work will begin immediately.

TACOMA, WASH.—The Columbia Brewing Co. has taken out a permit to build an addition to its brewery at a cost of $2,000.

SPOKANE, WASH.—Jones & Dillingham are making arrangements for a four-story brick addition to their factory, 40 × 55 ft.

PORTLAND, ORE.—The Columbia Basin Stockyards, Geo. T. Myers, Pres., will erect a $250,000 meat packing plant here.

PORTLAND, ORE.—Chas. Weyerhauser and Frank Thatcher, of Minnesota, and R. L. McCormick, of Tacoma, of the Weyerhauser Timber Co., intend purchasing a site for a saw mill in or near this city. The building of a mill by the Weyerhauser people is inevitable and a large modern plant will be put in but date of beginning operations is not announced.

PORTLAND, ORE.—The Oregon Water Power & Ry. Co. will expend more than $50,000 in building new and improved car-shops shortly, after the first of the year. Site has not yet been decided upon. Ford I. Brown, City, is Ch. Engr.

OAKLAND, CAL.—The Paraffine Paint Co., at Golden Gate, will build a paper mill in the near future. Cost, $250,000.

MISCELLANEOUS CONTRACTS.

WHARF.—Avonport, N. S.—Plans have been prepared for new Government wharf at this place.

FIRE ENGINES.—Winnipeg, Man.—City Council is considering purchase of two new fire engines.

WHARF.—Monterey, Cal.—Capt. William Matson has been granted franchise for wharf at foot of Spence St.

DREDGING.—Buffalo, N. Y.—City has let contract for dredging in Buffalo River, near Evans Slip, to Lake Erie Dredging Co. for $6,500.

STEAMERS.—Cleveland, O.—Pittsburg Steamship Co. has placed order with American Shipbuilding Co. for four ore steamers, to cost $430,000 each.

TILE DRAIN.—Mt. Vernon, Ind.—Bids are asked until Nov. 9 for construction of tile drain in West Lynn Township. Silas G. Howard, County Audr.

RIVER STRAIGHTENING.—Trinidad, Colo.—Special Council Committee has been considering straightening Los Animas River within city limits.

WHARF.—Deschambault, Que.—Bids are asked by Fred Gelinas, Secy. Dept. Pub. Wks., Ottawa, Ont., until Nov. 9 for construction of a wharf at this place.

WALL LOCKERS.—Prescott, Ariz.—Bids are asked until Nov. 16 for furnishing wall lockers. Capt. Chas. C. Walcutt, Jr., Q. M. (Advertised, Engineering News.)

WHARF.—Point Richmond, Cal.—Mountain Copper Co. has applied to Supervisors for franchise for wharf. Application provides for wharf with frontage of 670 ft.

CEMENT.—San Francisco, Cal.—Harbor Commissioners have awarded contract for cement for reconstructing dolphins between ferry slips to Holmes Lime Co. for $4,554.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

FIRE HOSE.—Glassport, Pa.—Bids are asked by Fire Committee, W. C. Niven, Box 374, until Nov. 14 for furnishing 1,000 ft. double jacket rubber-lined fire hose.

CHANNEL, ETC.—Ottawa, Ont.—Bids are asked by Fred Gelinas, Secy. Dept. Pub. Wks., Ottawa, for cutting of channel and protection works at Skinner's Cove, N. S.

LIGHT-HOUSE TENDER.—Toledo, O.—Craig Shipbuilding Co., Toledo, has secured contract for building light-house tender "Aspen" for U. S. Government, to cost $69,750.

POWER BOAT.—New Orleans, La.—Bids are asked by Oyster Commission of Louisiana, 124 St. Charles St., New Orleans, until Oct. 31 for construction of 60 ft. power boat.

FIRE HOSE.—New York, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until 10.30 a. m., Nov. 1, for furnishing and delivering 2,500 ft. 3½-in. cotton rubber-lined fire hose.

CANAL SALE.—Annapolis, Md.—State Board Public Works is asking bids until Dec. 1 for purchase of interest of state of Maryland in the Chesapeake & Ohio Canal Co. Oswald Tilghman, Secy. Bd.

PORTLAND CEMENT.—Washington, D. C.—The bids received Oct. 20 by Isthmian Canal Commission for furnishing 2,400 bbls. American Portland cement are given under Contract Prices in this issue.

DRAIN TILE.—Sibley, Ia.—Bids are asked until Nov. 15 for furnishing 4,200 ft. 15-in. tile and 4,700 ft. 12-in. tile f. o. b., Bigelow, Minn. Bids are also asked for placing the tile. Geo. W. Thomas, County Audr.

SHIP YARDS.—Los Angeles, Cal.—Local reports state that plans are being drawn for a ship yard which C. A. Hooper, San Francisco, Cal., will erect on terminal side of San Pedro Harbor at a cost of $175,000.

CONDUIT WORK, PIPING, ETC.—New York, N. Y.—Contract for conduit work, filters, piping, etc., at New York Aquarium, Battery Park, has been let to Chas. Wille, 29 E 42d St., New York, for $12,500.

DRAINAGE SYSTEM.—Boston, Mass.—Mayor Patrick Collins has asked Aldermen to appropriate $600,000 for constructing separate systems of drainage during the present year. James Donovan is Supt. Sts.

LEVEE RECONSTRUCTION.—Muscatine, Ia.—John T. Stewart, Paxton, Ill., of U. S. Department of Agriculture, is making investigations looking to the reconstruction of the Muscatine Island levee by the government.

DITCH.—Sterling, Ill.—Drainage Board of Union Drainage District No. 1 of Harmon Township, Lee County, Ill., has awarded contract to G. A. McWilliams, Walnut, Ill., for six miles of ditching work. Est. cost is $14,000.

CARTS, ETC.—Washington, D. C.—T. F. Stroud & Co., Omaha, Neb., are stated to have secured contract involving about $5,000, from Isthmian Canal Commission for supplying rock carts, dump cars and other supplies.

RIVER IMPROVEMENT.—Ottumwa, Ia.—C. R. Allen, Cy. Engr., has submitted to the Council plans for the improvement of the Des Moines River, to do away with danger from floods. Est. cost of work is about $96,000.

DRY-DOCK.—New York, N. Y.—The contract for constructing the dry-dock at the Brooklyn Navy Yard, bids for which were received Sept. 3, is stated to have been let to George E. Spearin, 17 Battery Pl., New York, for $692,000.

PNEUMATIC TUBES.—Montreal, Que.—Fred Gelinas, Secy., Dept. Pub. Wks., Ottawa, Ont., is stated to be receiving bids until Nov. 11 for pneumatic tubes for this city and Toronto, Ont., requiring 22,000 ft. 10-in. smooth-bored straight c. i. piping.

LEVEE WORK.—Marksville, La.—Commissioners Red River and Bayou, Des Glaizes Levee and Drainage District, are stated to have let contract Oct. 10 for about 1,000,000 cu. yds. levee work to Dameron & White and John Scott & Sons for $147,300.

FIRE ESCAPES.—Hudson, N. Y.—Bids are asked by the Board of Managers until Nov. 12 for furnishing eight fire-escapes at the New York State Training School for Girls. Chas. H. Strong, Pres.; G. L. Heins, State Arch.; Albany. (Advertised, Engineering News.)

LEVEE, DRAINAGE WORK.—Jerseyville, Ill.—Petitions have been filed in Jersey County Court for formation of the Nutwood Levee and Drainage District. About 15,000 acres of land will be affected. A levee is to be constructed and the channel of Macoupin Creek turned.

PILE AND TIMBER PIER.—Washington D. C.—Bids are asked by Bureau Yards and Docks until Nov. 12 for constructing pile and timber wharf at Navy Yard, Boston, Mass. M. T. Endicott, Ch. Bureau. Specifications for above are on file at office of Engineering News, 220 Broadway, New York.

OIL PIPE LINE.—Kansas City, Mo.—Prairie Oil & Gas Co., a subsidiary company of the Standard, has received permission from County Court to cross county roads with a pipe line. This is said to be the first step toward building the Standard Oil Co.'s pipe line from Sugar Creek to Whiting, Ind.

DREDGING.—Washington, D. C.—Following bids were received by Bureau Yards and Docks Oct. 22 for dredging and removing mud, sand, silt, etc., at Norfolk, Va., Navy Yard: Norfolk Dredging Co., 217 Water St., Norfolk, Va., $65,200; Coastwise Dredging Co., Atlantic Bldg., Norfolk, Va., $38,750 (accepted).

CANAL.—Ocean Park, Cal.—Owners of Short Line Beach tract, and Fraser & Jones, owners of the Strand tract have agreed to construct a 60 ft. wide canal, reaching from the Plaza del Rey Lagoon to the Waterway of Abbot Kinney's Venice. Canal will be concreted on both faces and will cost about $60,000.

DRAINAGE DITCH.—Onawa, Ia.—Monona-Harrison Drainage District has been established. The ditch is to be 24½ miles long and will reclaim about 86,000 acres. About 3,500,000 cu. yds. excavation will be required and the cost of the work is estimated at about $250,000. R. S. Fessenden, Onawa, is Engr.

TIMBER PIERS.—Washington, D. C.—Bids are asked by Bureau Yards and Docks until Nov. 12 for constructing two timber piers for approaches to Dry-Dock No. 2 at Navy Yard, Boston, Mass. M. T. Endicott, Ch. Bureau. Specifications for above work are on file at office of Engineering News, 220 Broadway, New York.

COLLIERS.—Washington, D. C.—Navy Department has issued orders for the commencement of construction at the Brooklyn, N. Y., Navy Yard of a naval collier. Two of these boats are to be constructed, the other having been assigned to the Mare Island Navy Yard. Each boat will be about 500 ft. long and will cost about $1,250,000.

CONDUIT SYSTEM.—San Francisco, Cal.—Board Supervisors have adopted resolution calling upon Department of Electricity to prepare plans and specifications for a permanent conduit system, that wires and pipes necessary to be used in supplying water, light, heat and power may be laid or shifted without the continual tearing up of street pavements.

ELEVATOR.—New York, N. Y.—Following bids were received Oct. 20 by James H. Tully, Comr. Dept. Pub. Charities, for installing passenger elevator in north wing of Cumberland St. Hospital; all New York bidders: Chas. Wille, 45 East 42d St., $10,470; R. J. Gerstle, 44th St. and First Ave., $9,887; Sprague Elevator Co., 17 Battery Pl., $9,370.

DAM.—Cincinnati, O.—U. S. War Department on Oct. 17 awarded contract to Sheridan-Kirk Contract Co., Madison, Ind., for constructing proposed dam below Cullom's Riffle. The contract price was $803,461. Proposals for this work were received Sept. 27, and the itemized bids obtained at that time are given under Contract Prices in our issue of Oct. 13.

RETAINING WALL.—Washington, D. C.—Bids are asked by Bureau Yards and Docks until Nov. 19 for constructing retaining wall about reserve basin at League Island Navy Yard, Pa. An appropriation of $77,000 is available for the work. M. T. Endicott, Ch. Bureau. Specifications for above work are on file at office of Engineering News, 220 Broadway, New York.

DITCH.—Warsaw, Ind.—Bids will be received by Samuel C. Funk, Drainage Comr., beginning at 3 p. m., Oct. 29, for construction of Samuel D. Anglin Ditch in Wayne Township. Work is as follows: Station 0 to Station 7, 9-in. tile; Station 7 to Station 19, 10-in. tile; Station 19 to Station 41, 14-in. tile; Station 41 to Station 50 plus 35, 15-in. tile. Stations are 100 ft. each.

COPPER FEED WIRE.—New York, N. Y.—Following bids were received Oct. 20 by Geo. E. Best, Comr. Bridges, for furnishing and delivering 22,000 lin. ft., more or less, of weatherproof insulated copper cable: Western Electric Co., 177 Broadway, $10,593; Standard Underground Cable Co., 56 Liberty St., $10,226; American Electric Co., 23 Cortlandt St., $10,409; Jno. Roebling & Son, 117 Liberty St., $10,120.

TUNNEL.—New York, N. Y.—The Lackawanna Tunnel Railroad Co., of New York city, has been incorporated with a capital of $300,000 to construct and operate a railroad from a point in the Borough of Manhattan south of West 23d St., through one or more tunnels under the waters of the Hudson River to Hoboken, N. J. The Directors are: W. H. Truesdale, E. E. Loomis, O. C. Post, Thomas E. Lee, George F. Wilson, A. D. Chambers, Frederick F. Chambers, William S. McGuire and Walter W. Ross, of New York city.

TILE DRAIN.—Pocahontas, Ia.—Bids are asked by George W. Day, County Audr., until Oct. 31 for constructing tile drain in District No. 7. Main branch includes 1,250 ft. of 24-in. tile, with an average depth of 5½ ft.; north branch, 2,000 ft. of 18-in., 2,400 ft. of 16-in., 1,600 ft. of 15-in., 1,900 ft. of 14-in., 1,000 ft. of 12-in., 1,600 ft. of 10-in., 1,500 ft. of 8-in., ranging from 3¾ to 7½ ft. deep. The south branch includes 3,500 ft. of 16-in. at 3½ ft., 1,500 ft. of 16-in. at 6½ ft., 2,750 ft. of 18-in. at 6½ ft., 1,000 ft. of 14-in. at 5 ft., 1,000 ft. 12-in and 1,800 ft. 10-in. at 4½ ft.

UNDERGROUND CONDUIT SYSTEM.—Washington, D. C.—Bids were received, as follows, by Bureau Yards and Docks, Oct. 22, for constructing underground conduit system at Boston, Mass., Navy Yard: Metropolitan Contracting Co., 95 Milk St., Boston, Mass., $8,300; Jones & Meehan, 1 Beacon St., Boston, Mass., $9,768; Coleman Bros., Everett, Mass., $10,418; Aberthaw Construction Co., 8 Beacon St., Boston, Mass., $12,334; A. T. Leach, Boston, Mass., $11,983; E. R. Taylor & Co., 164 Federal St., Boston, Mass., $11,311; Simpson Bros. Corporation, 166 Devonshire St., Boston, Mass., $11,168.

BOILERS, ETC.—New York, N. Y.—James H. Tully, Comr. Pub. Charities, received following bids Oct. 20 for furnishing labor and material required for installing new boilers and making alterations to boiler house at Laundry, City Hospital, Blackwell's Island: Motley, Green & Co., 68 Broad St., $8,400; B. Franklin Hart Co., 143 Liberty St., $8,639; A. Wintney, $10,800; Evans, Ahlmaral & Co., 281 Water St., $8,147; F. MacSwegan, Dover & Franklyn Sq., $13,890; Frank Dobson, 218 East 42d St., $8,735; Ed. Burhorn, 71 Wall St., $10,967; R. J. F. Gerstle, 44th St and First Ave., $8,688; United Heating Co., 143 Wooster St., $9,321.

TUNNEL, CANAL.—Montrose, Colo.—Contract for constructing the Gunnison tunnel and approaches in connection with the Uncompahgre River irrigation project is stated to have been let to Taylor Moore Construction Co., Hillsboro, Tex., for $1,008,500. Bid for this portion of the work were received Oct. 5; the itemized bids are given under Contract Prices in our Oct. 13 issue. The contracts for constructing South Canal in connection with the above project are stated to have been let as follows: Kellogg & Wosley, Gunnison, Colo., one section; Orman & Crook, Pueblo, Colo., three sections; Knowlton & Bollen Construction Co., Fort Collins, Colo., five sections. Bids for the canal work were opened Sept. 15, itemized bids being given under Contract Prices in our issue of Sept. 29.

DRAINAGE WORKS.—Falls City, Neb.—County Board has been petitioned for construction of drainage works along the Nemaha Valley. The approximate cost of the work, according to a statement of C. G. Elliot, a drainage expert of the U. S. Department of Agriculture, is about as follows: Seven miles solid cut, $11,616 per mile, $81,312; 17 miles cleaning out old channel, $2,000 per mile, $34,000; widening three miles of the river next to the Missouri River, $7,000 per mile, $21,000. On four tributary streams it would be necessary to make solid cuts amounting to 4.5 miles at $6,818 per mile, $30,676; and to clean out 13.5 miles of such tributaries at a cost of $180,488 for actual construction; damage claims, $15,000, and for expenses of engineering and administration, $9,774; total, $205,262.

BOILERS, TANK, ETC.—New York, N. Y.—Bids as follows were received Oct. 20 by James H. Tully, Comr. Dept. Pub. Charities, for furnishing all the labor and material required to install two 50-HP. boilers, one hot water tank, one return tank and feed pumps, one fire service pump with all the usual and necessary connections; also remove the present heating boilers and the high pressure boiler, and run a new 2½-in. water main at Cumberland St. Hospital: United Heating Co., 174 Wooster St., $5,921; E. Rutzler, 127 White St., $6,299; R. J. F. Gerstle, 44th St. and First Ave., $6,921; Frank Dobson, 218 East 42d St., $6,640; Frank MacSwegan, Dover and Franklyn Sq., $8,397; Evans, Ahlmaral & Co., 281 Water St., $6,397; Columbia Engine Works, Quinlay and Williams Sts., Brooklyn, $7,033; Motley, Green & Co., 68 Broad St., $5,625; B. Franklin Hart, 143 Liberty St., $6,830; Blake & Williams, 211 West 20th St., $6,192; Chas Wille, 45 East 42d St., $7,350.

DREDGING, FILLING.—Cape May, N. J.—On Oct. 24, under a contract just entered into by the Cape May Real Estate Co., the Atlantic, Gulf & Pacific Dredging Co., Park Row Bldg., New York, began operations here in the line of dredging and filling on the New Cape property owned by the Cape May Real Estate Co., which has decided to push ahead the development work as speedily as possible. Additional dredges will at once be put in operation in the 500-acre inland harbor now being formed and the pumping of sand will go on day and night until the entire tract of over 3,000 acres has been filled to grade. This is stated to be one of the largest dredging contracts ever awarded, outside of Government work. The harbor will have an average depth of 35 ft., with an entrance from the sea 850 ft. wide. The material removed is pumped through the dredge pipes to any portion of the great tract upon which a New Cape May will be established. Thus 3,600 acres will be added to the present city of Cape May. By next spring it is expected the greater portion of the filling will be completed. Peter Shields is Pres., Cape May Real Estate Co.

CARS.—Washington, D. C.—Bids were opened by the Isthmian Canal Commission Oct. 20 for furnishing 1,000 dump cars and 500 American flat cars. The bids varied considerably, some of the bidders offering proposals on cars delivered at the Isthmus, with an allowance for freight, and others specified delivery at New York. The bids received appear to be as follows: 1,000 dump cars—Standard Steel Car Co., Pittsburg, Pa., $1,600 each f. o. b. Colon (bid includes $98 for freight); Goodwin Car Co., New York, $2,470 each, Class G, $2,575 (freight to be paid by Commission); Roger Ballast Car Co., Chicago, Ill., $1,800 each f. o. b. Colon ($343 included for freight from New York; no check with bid); Middletown Car Works, Middletown, Pa., Lawson two-box cars, $2,150 each or King-Lawson single-box cars, $2,052 each f. o. b. New York (bid on 100 cars only); Western Wheel Scraper Co., Chicago, Ill., $950 each, freight to be paid by Commission, or $990 each, freight paid by bidder; Pullman Car Co., Pullman, Ill., Englesby wood dump cars, $1,425 each f. o. b. Colon, or $1,350 each if freight is paid by Commission; American Car & Foundry Co., St. Louis, Mo., 80,000 lbs. capacity cars, $1,300, including $147.48 for freight, Englesby pattern, 100,000 lbs. capacity, $2,200 each, including $200 for freight, National Coal Dump Car Co.'s design, 80 000 lbs. capacity, if of steel, $1,900, if of wood, $1,700, bids include $203 freight for former and $183 for latter; Western Steel Car & Foundry Co., Chicago, Ill., side dump gondola cars, $1,706 f. o. b. Colon, if freight is paid by Commission, $1,623. 500 flat cars—Standard Steel Car Co., Pittsburg, Pa., Vanderbilt flat cars, $925 each f. o. b. Colon (includes $117 for freight); South Atlantic Car & Mfg. Co., $717 each, freight paid by Commission, or $795 each, freight paid by bidder; Pressed Steel Car Co., New York, $870 each f. o. b. Colon, or $820 if freight is paid by Commission; American Car & Foundry Co, $1,075 each, including $141 for freight.

MINING NOTES.

MILL.—Bisbee, Ariz.—The Gold Nugget Mining Co., J. G. Pritchard, Secy., Bisbee, will shortly install a small mill.

MILL.—Redding, Cal.—Original Quartz Hill Gold Mining Co., M. Maryganski, Mgr., contemplates construction of a mill.

SMELTER ENLARGEMENT.—Salt Lake City, Utah.—Directors of company owning Yampa smelter are stated to have appropriated $150,000 for its enlargement. W. S. Kelly is Gen. Mgr.

SMELTER.—Bellingham, Wash.—It is stated that if satisfactory ore deposits are found, Chancellor Gold Mining Co., of Chicago, Ill., will erect $60,000 smelter in Slate Creek District.

LEACHING PLANT.—Florence, Ariz.—Model Mining & Metal Co., H. P. McIntosh, Pres., according to reports, will erect a ten-ton leaching plant on their mill site at the river. They will put in sufficient power to run a large plant.

REMODELLING MILL.—Salt Lake City, Utah.—Advices from this city state that the mill on the properties of the Chloride Point Co., on Lion Hill, Tooele County, is to be remodeled. Geo. St. Clair and Geo. Clark have a lease on the property.

TUNNEL MILL.—Portland, Ore.—Local reports state that Star Consolidated Mining Co. has let contract to Warren D. Hartley for further development of its properties in Bohemia District. Running of 150-ft. tunnel is contemplated, also erection of mill next summer.

MINING EQUIPMENT, ETC.—Salt Lake City, Utah.—Advices from this city state that the following improvements are contemplated in various mining districts: D. H. Jackson, Placerville, Cal., will equip the Landecker mines with machinery and reduction works.——It is believed that reduction works will soon be built by the Montana-Tonopah Mining Co. at Tonopah, Nev.——The Zantgraf Extension Mining Co., of Loomis, Cal., will soon build reduction works. F. B. Morton is Supt.——The Kinkead-Goldfield Co., operating near Kinkead, Esmeralda County, Nev., has reduction works in contemplation.——It is understood that M. T. Effinger, of Tonopah, Nev., will soon be in the market for machinery for a mill.——A mill for the American Flag Mine, at Park City, Utah, is one of the possibilities of the near future. Capt. J. F. Singiser, of Salt Lake City, is Mgr.——The Gold Dike mine, near Redding, Cal., is to be equipped with a 30-ton mill. L. S. Barnes is Mgr.——The New York-Grass Valley Mining Co., of Grass Valley, Cal., will add stamps to its mill battery.——F. W. Mahler, of Yreka, Cal., owning the Drummer Boy mine near that place, will build a stamp mill and concentrator.

U. S. POSSESSIONS AND CUBA.

BRIDGE.—Philippines.—Manila Electric Railroad & Light Co., Manila, has asked permit to build bridge over estero in Calle Marquez de Comallas and the Isla Provisora.

WHARF, SEA WALL.—Hawaii.—Honolulu reports state that Special Agent Roberts will draw detailed plans for the improvement of Quarantine Island, to consist of a large wharf, a pier, seawall and minor improvements.

RESERVOIR.—Hawaii.—Surveys are stated to be under way for the reservoir to be constructed at Nuuanu for the Honolulu Water Works system. An appropriation of $75,000 has been made for its construction. A large quantity of mains are to be laid also. J. Hastings Howland is Deputy Supt. Pub. Wks., Honolulu.

BELTING, IRON PIPE, ETC.—Philippines.—Bids are being asked by Major C. A. Devol, Q. M., U. S. A., 36 New Montgomery St., San Francisco, Cal., until 10 a. m., Oct. 31 for furnishing belting, iron pipe, valves, etc., for ice plant, Philippine Islands. Bids are also asked until Nov. 7 for furnishing fire hose, hose carts, pipe and fittings for Camp Daroga, Philippines.

HOSPITAL.—Cuba.—President Palma is stated to have approved plan of Dr. Tomas V. Coronado, Pres. Bd. Regents, San Lazaro Hospital, for transfer of leper hospital to San Tomas. The plan provides for erection of small wooden buildings at an estimated cost of $150,000. Project will probably be included in public work to be undertaken the coming fiscal year.

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BUILDINGS.—Philippines.—U. S. Government has retained D. H. Burnham, Arch., Railway Exchange Bldg., Chicago, Ill., to make plans and report on the reconstruction of municipal and army buildings in the city of Manila, and also to design plans for a summer capital which will be located some 100 miles distant from Manila. The project will involve expenditure of several millions of dollars. Mr. Burnham has already left for Manila and on his return will make recommendations and appropriations will be made by Congress.

MEXICO.

RAILWAYS.

CHIHUAHUA.—It is reported that three sections of railway are to be built in the state of Chihuahua, which in connection with the Sierra Madre R. R., will form a belt line in the western portion of the state. Some time ago work was commenced on a wagon road from Minaca to Jesus Maria, and it is said a portion of the grade will be utilized for a railway. An electric road from Rio Grande to the Guerrero basin, about 80 miles long, will be a second link in the scheme, and the third will be from Minaca to Guerra, and it is said will be built by the Chihuahua & Pacific Co. H. C. Dougherty, Jesus M., Chihuahua, can give information.

CITY OF MEXICO.—S. J. Cox, of Sinaloa, Mexico, was recently in Santa Monica, Cal., endeavoring to interest capitalists in the construction of a 450-mile railroad to connect with Port Stillwell or Topolobampo. He has a plan under consideration to irrigate about 500,000 acres of land.

CITY OF MEXICO.—The Mexican Government is considering the establishment of railroad communication between this city and the Peninsula of Yucatan. To do this it will be necessary to construct a line from some point on the National R. R. of Tehuantepec to a connection with the United R. R. of Yucatan at the port of Campeche. The line would be about 500 miles long. It is said that S. Pearson & Son, the English contracting firm, will build the road for the government.

CITY OF MEXICO.—It is reported that the National Railroad Co. of Mexico will soon take steps towards building an extension of its Uruapan division from Uruapan to the port of Manzanillo. It is stated that an investigation has been made of the water power available along the Tuxpam River with the view of establishing a large electrical generating plant to operate a part of the proposed extension of the division of the road in question. R. T. MacDonald, City of Mexico, is Ch. Engr.

ENCARNACION DE DIAZ, JALISCO.—Gregorio D. Covarrubias, a prominent attorney of the city of Guadalajara, is at the head of a project to build a railroad from this place to a point on the Mexican Central R. R. The state government is giving him aid in the project.

JALISCO.—The Mexican Central Railway Co. has been granted an extension until Oct. 1, 1905, for the completion of its line from Tuxpan to the city of Colima. The distance to be built is about 60 kilometers, but it is one of the most difficult pieces of line in Mexico, and the company has suspended work for some time. Lewis Kingman, City of Mexico, is Ch. Engr.

TETEPANGO.—Richard Honey, Mgr. International Mortgage Bank, City of Mexico, has been granted franchise for railroad to be built from this place to Ixmiquilpan, and later to be extended to Zimapan and beyond. The contract is stated to have been let to John Phillips, a railroad engineer of extended experience in Mexico.

STREET AND ELECTRIC RAILWAYS.

CHIHUAHUA.—Governor Creel in his message on the opening of the Chihuahua legislature refers to the following concessions granted: Colonel Antonio Ramos Cadena for building tramways in the town of Camargo; Señores Julio Lopez Velarde and associates for tramways in Aldama; Licenciado Felipe Seijas and associates for the establishment of an electric plant in Ciudad Juarez.

CITY OF MEXICO.—Further particulars regarding the purchase of Popocatepetl Volcano by Capt. Charles Holt and A. F. Smith, mentioned in our last issue, are at hand. It is stated in these that the concession recently granted by the government to Domingo Barrios, for the construction of an electric railway from the City of Mexico to Puebla is to be constructed by the syndicate represented by Capt Holt and Mr. Smith. It is also stated that the necessary plant for the extraction of sulphur is to be erected at once. A gravity hoist will be installed and the gravity railway to Cedral, 9½ miles distant from the crater, where the company headquarters will be located. It is expected the above described plant will be in operation within eight months.

LIGHT AND POWER PLANTS.

CHIHUAHUA.—Bernard J. Mahony, Asst. Corporation Counsel of Chicago, Ill., has concluded the arrangements for the establishment of a water power plant, on the Conchos River, state of Chihuahua, the power to develop electric energy to be transmitted to the city of Parral, 41 miles distant, and the city of Chihuahua, 80 miles away. The power will be sufficient to furnish electric energy within a radius of 100 miles; the plant is to be located near the village of La Joya. Work will commence as soon as possible, and will involve an expenditure of about $1,000,000 gold. The company is organized under the title of the Conchos River Power Co. John F. Kelly, of the John F. Kelly Engineering Co., 149 Broadway, New York City, is Pres.; Bernard J. Mahony, of Chicago, is Vice-Pres. and T. W. Kloman, of New York, is Secy. The John F. Kelly Co. are the Engrs.

PUEBLA.—City Council has entered into a contract with the electric company which furnishes light for the city, for the installation of 414 additional lamps.

BRIDGES.

CITY OF MEXICO.—Construction of iron bridge over Grand Canal to connect the San Lazaro and the Vaquita Plains will probably be commenced early in December. Shops for manufacture of necessary structural material are to be erected. Work is to be done for Mexican Government and Colonel Mondragon is in charge.

BUILDINGS.

CITY OF MEXICO.—The government has approved the plans for the construction of the building to be occupied by the department of communications and the federal telegraph offices. The building will be erected on the site occupied by the San Andres Hospital, which will be demolished. Silvio Contri, City of Mexico, is Arch.

CITY OF MEXICO.—Plans for the general insane asylum to be erected in the federal district have been approved, and it is expected work will commence in November.

MERIDA, YUCATAN.—Plans are being made for the projected federal building to be constructed at Merida, on a lot south of the Rosado Park.

WATER-WORKS.

JAUREZ.—City Council has appointed committee to devise ways and means for building a complete water-works system.

MANUFACTURING PLANTS.

CITY OF MEXICO.—The erection of a plant near this city for manufacturing cotton goods is stated to have practically been decided on. Francesco Gasperini, representing the Italian firm of Fratelli Costa & Co., of Genoa, has been in this city investigating the feasibility of the project. It is proposed to erect a factory, the erection and equipment of which will cost $500,000; 300 looms are to be installed, each loom to be equipped with its own electric motor.

MISCELLANEOUS.

COLONY.—City of Mexico.—San Diego, Cal., reports quote General Manager Packard of the Lower California Co. as stating that surveyors are about leaving Ensenada for the Colorado River for the purpose of laying out 200,000 acres owned by the company below the international boundary, the purpose being to open up the land for a settlement. He says that a water system similar to that of Imperial, Cal., will be established.

HOISTING MACHINERY.—Cananea, Sonora.—Hoisting machinery is to be installed at the Guadalupe mine, near Cananea, Sonora.

MINING MACHINERY.—City of Mexico.—The Lluvia de Oro mine, state of Chihuahua, which has been purchased by an American syndicate and of which Henry S. MacKay, of Los Angeles, Cal., an engineer, is one of the stockholders, is to be developed extensively and the most modern machinery installed.

SMELTER.—Mazapil, Zacatecas.—James Melville, a contractor of Saltillo, is grading the branch from the Coahuila & Zacatec Ry. to the new smelter site of the Mazapil Copper Co., a distance of about six kilometers, and work on the smelter will commence on the completion of the line, the road to handle the materials necessary for the smelter.

SMELTER.—Oaxaca.—A concession has been granted Luis Garcia Teruel to erect a smelter at Ocotlan or Ejutla, state of Oaxaca.

STAMP MILL.—Sonora.—It is proposed to erect a stamp-mill without delay at the Esmeralda mine, located in the Montezuma district, state of Sonora. Geo. W. Holmes, of St. Louis, Mo., who is one of the heaviest stockholders of the company which has recently purchased the mine, will be Mgr.

FOREIGN CONTRACTS—EXPORT NEWS.

ELECTRIC LIGHTING.—England.—Corporation of Tamworth has been considering offers for the construction and maintenance of electric plant.

ELECTRIC PLANT.—England.—Town Corporation of Barrow-in-Furness is considering borrowing $175,000 for the extension of its electric plant.

WATER SUPPLY.—England.—Town Council of Peterborough has decided to proceed at once with a new water supply scheme, which is to cost about $175,000.

CRANE.—England.—Corporation of Swansea, Jno. Thomas, Town Clk., is asking bids until Nov. 12 for supply, delivery and erection of one 8-ton traveling hand crane.

BUILDING.—England.—London County Council early in this month awarded contract for constructing Long Grove Asylum to Foster & Dicksee, of Rugoy, for about $1,799,000.

TRAM CARS.—England.—Corporation of West Ham, a parliamentary Borough of London, in Essex County is stated to be asking bids until Nov. 11 for 35 double-deck tram cars, with electrical equipment.

HARBOR IMPROVEMENTS.—West Indies.—The harbor improvements contemplated by Great Britain in making Trinidad its principal naval station in the West Indies will cost, it is stated, at least $3,750,000.

ELECTRIC TRAMWAY.—Spain.—Permission has been granted Don Manuel Esconaza, of Madrid, to execute surveys for an electric tramway line from Zaragoza to Alagon via Monzalbarba, Utebo and Las Casetas.

SANITARY WORKS.—Panama.—The Government on Nov. 8 will let contract for sanitary works at Bocas, capital city of province of Bocas del Tora. The work will consist of constructing storm drainage and filling of low land.

HARBOR WORKS.—New Zealand.—The Auckland Harbor Board is seeking authority from the New Zealand Parliament to borrow $2,000,000 for the purpose of carrying out the first part of the projected harbor improvements contemplated for that city.

ELECTRIC RAILWAY.—Switzerland.—Proposition for connecting Martigny, in the Canton of Wallis, with Turin, has been submitted to the Federal Government for approval. The road would be about 98 miles long. Radcliff Ward, of Berne, is Engr.

RAILROAD.—Chili.—We are informed that the Transandine Construction Co., Ltd., which has begun work on the Transandine Ry., will not let any sub-contracts, as the Board has decided to do the work itself. Headquarters of the construction company are at 144 Leadenhall St., London, E. C.

RAILWAY.—Argentina.—The "Official Bulletin" of Aug. 29 publishes a law conceding to Señor J. Lloyd the right of constructing a line of railway from the terminus of the railway already authorized in the province of San Luis to San Rafael in the province of Mendoza, and thence by the valley of the Atuel to a point on the frontier between Chile and Argentina.

ELECTRIC PLANT.—South Africa.—Specifications are being prepared, according to reports, and contract probably will be let some time next month, for equipment for the projected electric plant of Port Elizabeth, for which an expenditure of $450,000 has been authorized. Among the equipment will be three sets of 400 KW. steam turbine generators, of about 1,800 total HP. Hammond & Son, London, England, are Consulting Engrs.

STREET EXTENSION, ETC.—France.—Advices from Paris state that the Avenue des Champs Elysées is to be extended to the Forest of St. Germain. The total length of this great thoroughfare will be about 8 miles and the width 45 yards. The center will be taken up by an electric railway, which will be a continuation of the Paris Metropolitan, and on either side of the railway will be tracks for motor-cars, cycles, horse vehicles, and pedestrians. The total cost of the undertaking, including the bridges, which it will be necessary to construct across the Seine, is expected to be about $2,000,000.

ROADS, BRIDGES, ETC.—Panama.—The Government of this republic has set aside $3,000,000 to be used in the construction of roads, bridges and other public improvements. Of this sum $450,000 is to be expended for building a national trans-isthmian highway extending from the Pacific coast city of David to Bocas del Toro on the Caribbean Sea. In the building of the new bridges and markets contemplated by the Government a considerable amount of structural material will be brought into requisition, and this will undoubtedly be purchased in the United States. The office of the Panama Consul in New York city is at 18 Broadway.

RAILWAYS.—Argentina.—The "Official Bulletin" of Sept. 5 publishes a law authorizing the Government to proceed with surveys for a prolongation of the Central Northern Ry. of Argentina from Burruyacû to the River Bermejo, passing through the Province of Salta, and a further law ordering the execution of surveys for a railway from the most convenient point on the line projected from Deán Funes to Rosario, to connect with the line projected from Villa Mercedes to Bahia Blanca; the line to be surveyed is to pass through Cordoba, and near San José, Molinos, San Agustin and El Salto, to connect with the Rio Cuarto Andine line, and to have a branch up the Calamuchita Valley.

RAILWAYS.—South Africa.—The Natal Government, according to advices from South Africa, is to commence within three months the construction of a railway from Bethlehem to Kroonstad, in the Orange River Colony. The road will be about 70 miles long and the cost will approximate $3,000,000. The same colony has also agreed to advance the Inter-Colonial Council $750,000 toward building another railway from Bethlehem to Nodderpoort, about 80 miles. The companies owning the principal collieries in the Transvaal are also to construct a 58-mile railroad from Witbank to Springs, the cost of this road being estimated at $1,500,000. In addition to the above-mentioned projects overtures have been made to the Transvaal Government for the construction of a line from Belfast to Lidenburg, a distance of 145 miles.

READERS' WANTS

This Department contains special requests, and detailed items, from persons in the market for supplies, and from others asking for the names and addresses of firms manufacturing certain tools, machinery and supplies required for work in which they are interested. ENGINEERING NEWS will be glad to furnish at once, free of cost, names and addresses of firms making the machinery or material desired, after which the item will appear in this column, **UNLESS OTHERWISE REQUESTED**, which request will be honored absolutely. The information **in all cases will be sent to our advertisers** handling the material wanted, or to other firms should it be out of the line of our advertisers. Every day we are receiving such requests with the understanding that it must not appear in the paper.

PAINT.—Hendersonville, N. C.—F. W. Embank is in the market for paint.

STEEL CARS.—Oklahoma City, Okla.—Hudson & Cook are in the market for 20 to 25 steel cars.

150-TON ICE-MAKING PLANT.—Atlanta, Ga.—The Atlanta Ice & Coal Co. is in the market for the above.

ELECTRIC WIRING AND PLUMBING.—Beaver Falls, Pa.—The Penn Bridge Co. is in the market for the above.

AIR COMPRESSORS.—Birmingham, Ala.—C. T. Lehman, 1908 Powell Ave., is in the market for air compressors.

DERRICKS.—Springfield, Mo.—The Crossen-Badge Construction Co., Baldwin Bldg., is in the market for derricks.

WIRE ROPE TRAMWAYS.—Fayetteville, Ark.—The Fayetteville White Lime Works is in the market for the above.

BEET SLICING MACHINERY.—Ithaca, N. Y.—H. C. Rinz, 111 Catherine St., writes us that he wants catalogues of concerns that manufacture a machine for peeling the sugar beet.

BURNED-OUT INCANDESCENT LAMPS.—Youngstown, O.—The General Fireproofing Co. writes us that it wants to get into communication with firms buying burned out incandescent lamps.

BRIDGE WORK.—Chester, Pa.—Jos. P. Wetherill, of the Jas. P. Wetherill Machine Co., writes us that he wishes to get into correspondence with bridge builders, and requests that printed matter be sent them.

BRICK, ROOFING, BLOWERS, CUPOLAS, ETC.—Chattanooga, Tenn.—The Tennessee Stove Works, 9 East Eighth St., is in the market for brick, roofing, lumber, blowers, etc., for the proposed improvements.

PORTABLE HAND DRILLING MACHINES.—Amsterdam, Holland.—M. Vander Linde & Teves, Kantoor, Amsterdam, Kigersgracht 382, Amsterdam, is in the market for portable hand drills, and also for machines driven by electricity.

NICKEL STEEL MEASURING APPARATUS.—New York.—A correspondent wishes the names and addresses of firms manufacturing nickel steel measuring apparatus. Address "E. H. F.," Care Engineering News, 220 Broadway, New York.

PNEUMATIC CYLINDER HOISTS.—Sault Ste. Marie, Mich.—A. S. Robinson, Supervising Engr., MacArthur Bros. Co., Sault Savings Bank Bldg., writes us that he wants the names and addresses of firms making pneumatic cylinder hoists.

15-HP. HOISTING ENGINE.—Fairmont, W. Va.—The Brady Construction Co. writes us that it is in the market for a hoisting engine, 15 HP., single or double cylinder, with single friction drum, elevator sheave and hoisting spool. Catalogues and prices are wanted.

SPIRAL FIRE ESCAPES.—Salt Lake City, Utah.—W. W. Gray, of Salt Lake City, writes us that he wants the names of firms manufacturing spiral fire escapes, as it is desired to install the same at the orphanage. The kind wanted is that in which persons may jump from any story and simply slide down to safety.

PORTABLE CRUSHED STONE BIN.—Reidsville, N. Y.—Jos. Walker, Gen. Contractor, Reidsville, and Mariner's Harbor (S. I.), N. Y., writes us that he will soon be in the market for a portable crushed stone bin of 50 yds. capacity. It is desired to get one that can be shipped on a train without dismantling.

DRAFTING ROOM SUPPLIES, FLUSH-TANKS, STEEL SMOKESTACKS, SURVEYING INSTRUMENTS, WOODEN WATER TANKS, WINDMILLS, ETC., AND BUILDING MATERIAL.—China.—Purnell & Paget, Archts., and C. Engrs., Canton, China, write us that they are in the market for the above-mentioned supplies in connection with considerable work they have on hand. They state that catalogues are wanted now so that they will have all possible data on hand when prepared to order supplies.

LAUNCHES FOR SHALLOW RIVERS.—China.—D. M. Mickle, of Changsha, Hunan, China, writes us that he wishes to be put in communication with firms in the U. S. who build launches for shallow rivers. What is wanted is a number of passenger-carrying boats of not more than 2½ ft. draft; a number of cargo boats of the same draft and a few tug launches, very strong, with a draft of 5 ft. Stern paddle wheel boats of the lighter draft might be profitably introduced also. Tug boats with a draft of 2½ ft. can be used.

BOILERS, CASTINGS, CATCH-BASINS, CEMENT CONCRETE CONSTRUCTION, CONDUITS, HYDRANTS, MANHOLES, PIPE-CUTTING MACHINES, PIPE JOINTERS, PUMPING ENGINES, SEWER PIPE, SHEET PILING, SMOKESTACKS, STANDPIPE, STRUCTURAL MATERIAL, TURBINES, VALVES, WATER PIPE, WATER TANKS, WELL PUMPS, WATER FILTERS, WELLS, WINDMILLS, ETC.—Cuba.—Rhoade Fisher, Jr., C. E., of the District of Camaquey (Camaquey), Cuba, writes us that he wants catalogues and printed matter from manufacturers of the above-named supplies for the proposed water-works.

CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

*WATER-WORKS.—Bordentown, N. J.—Following bids were received by Board Water Commissioners Oct. 15 for constructing system of water-works; prices bid on cast-iron pipe are for pipe furnished and laid; the contractor furnishes all labor and material for the complete work; C. C. Vermeule 203 Broadway, New York, is Consult. Engr.; (1) J. H. Louchheim, Philadelphia, Pa.; (2) L. J. Richardson, Owego, N. Y.; (3) McGovern Construction Co., Trenton, N. J.; (4) Harmer & Quinn, Philadelphia, Pa.; (5) Ford & Waldo; (6) Hillpot & McCabe, Jersey City, N. J.; (7) Hugh J. Reilly, Jr., New York (awarded contract); (8) Harry Morgan, Trenton, N. J.; (9) Michael J. Curley, Jersey City, N. J.; (10) Hawman Bros., Reading, Pa.; (11) Frank B. Gilbreth, New York:

BIDS RECEIVED AT BORDENTOWN, N. J., OCT. 15, 1904, FOR CONSTRUCTING SYSTEM OF WATER-WORKS.

Items.	Quantities.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
10-in. c. i. pipe, 660 lbs. per length	14,400 ft	$1.16	$ .92	$ .98	$1.12	$1.00	$1.23	$1.20	$1.14⅛	$1.30	$1.00	$1.45
10-in c. i. pipe, 725 lbs. per length	1,200 ft	1.28	.95	1.04	1.19	1.16	1.35	1.07	1.25¼	1.40	1.06	1.41
10-in. c. i. pipe, 805 lbs. per length	1,900 ft	1.38	1.03	1.13	1.30	1.25	1.47	1.03	1.44⅛	1.51	1.15	1.35
8-in. c. i. pipe, 475 lbs. per length	3,410 ft	.85	.73	.75	.91	.81	.93	.83	.87¼	1.04	.75	1.19
6-in. c. i. pipe, 330 lbs. per length	20,865 ft	.68	.56	.58	.65	.70	.62	.48	.68	.65	.56	.90
4-in. c. i. pipe, 200 lbs. per length	7,410 ft	.54	.44	.40	.53	.43	.42	.35	.51⅛	.48	.40	.69
10-in. gate valves, with boxes	5	33.90	30.00	30.00	34.00	27.00	33.00	30.00	26.00	36.00	31.66	38.00
8-in. gate valves, with boxes	13	24.40	21.50	22.00	26.00	20.50	26.00	21.50	18.00	28.00	23.00	28.00
6-in. gate valves, with boxes	35	17.25	16.00	16.00	19.00	14.45	20.00	15.00	12.00	24.00	17.40	18.00
4-in. gate valves, with boxes	29	12.00	11.50	11.25	15.50	10.86	15.00	11.50	7.50	18.50	13.65	348.00
12-in. collecting drains	1,200 ft	2.20	3.50	4.28	5.28	2.37	2.63	2.00	3.87	2.79	2.25	1,008.00
8-in. collecting drains	1,600 ft	1.80	2.50	2.00	3.25	2.27	1.22	1.80	3.62	1.35	2.10	916.00
Creek crossing		1,300	1,600	1,500	2,000	1,923	1,500	4.80	1,500	1,737	1,370	450
Concrete water-tower with steel tank		14,500	20,000	......	18,175	18,252	11,853	10,552	10,000	12,050	14,500	13,450
Pumping station, horizontal pumps		14,000	18,575	16,500	23,500	20,000	15,925	12,597	17.100	16,150	13,640	25,000
Total		$78,709	$83,477	......	$97,392	$86,594	77,369	$66,157	$81,766	$81,300	$72,101	$95,342
Alternative Bids.												
Steel tower with steel tanks		$14,500	$12,500	$12,500	{A $14,630 / B 15,576}	$20,870	$13,583	$9,960	$9,500	$13,875	$13,125	$9,500
Pumping station with vertical pumps		15,200	20,075	18,000	26,350	22,576	17,425	12,697	18,950	18,285	15,329	25,400
Pumping station, one pump		13,100	17,475	1,300	22,500	16,944	14,965	11,343	17,500	15,000	{12,540 / 13,130}	22,720
Sinking suction well 8 feet additional		1,200	2,000	3,000	6,300	2,500	1,250	1,150	600	1,275	950	1,800

TUNNEL.—San Bernardino, Cal.—Local reports state that Arrowhead Reservoir Co., Victor Smith, Mgr., has let contract for tunnel, to connect its Grass Valley reservoir with Little Bear Valley reservoir, to W. S. Hosking Co., Ocean Park, Cal. According to the report the itemized bid was as follows: 9,882 cu. yds. of earth, at 24 cts.; 2,824 cu. yds. of loose rock, at 50 cts.; 1,412 cu. yds. of solid rock, at $1.50; tunnel excavation, 3,732 lin. ft., at $9.34; timbering, 1,000 lin. ft., at $2; concrete portal walls, 136 cu. yds., at $5.50; concrete lining, 500 cu. yds., at $7.25; paving floor, west end, 244 sq. yds., at 20 cts.; dry walls and riprap work, 1,422 sq. yds., at 70 cts.; paving floor, east approach, 635 sq. yds., at 15 cts.

WATER MAINS.—New York, N. Y.—Following bids were received by Commissioner Water Supply, Gas and Electricity Oct. 19 for furnishing, delivering and laying water mains in Boroughs of Manhattan and the Bronx; (1) Louis D. Gregory, East 120th St.; (2) Lloyd Collis, 21 Park Row; (3) Clinton Beckwith, Jerome Park; (4) Wilton Construction Co., Williamsbridge, New York; (5) Norton & Dalton Construction Co., 27 West 140th St.; (6) Jos. Gallo, Pelham Ave. Bridge; (7) Cunningham & Kearns Contracting Co., 438 East 91st St.; (8) Jno. Cornwell, 69 East 127th St.; (9) Century Construction Co., 5 East 42d St.:

$1.40 under proposition A, additional lots of 500 bbls., $1.80, commence delivery in 10 days; Marquette Cement Mfg. Co., La Salle, Ill., $2.70, no check; Friedenburg & Lansbury, New York city, Nazreth Brand, $1.30 under proposition A; Lehigh Portland Cement Co., Allentown, Pa., Lehigh cement, $2.13 under proposition A, delivery in 10 days; if freight is paid by Panama Canal Commission $5 per gross ton will be deducted; Standard Materials Co., 1 Broadway, New York city, $2.13 f. o. b. Colon under proposition A; Penn Allen Portland Cement Co., Allentown, Pa., Penn-Allen cement, $2.14 in barrels under proposition A; United Building Material Co., Park Row Building, New York, proposition A, $4,944; B, $4,536; bid contemplates delivery of Giant brand; for additional lots of 25,000 bbls. or over $1.94 is quoted; Wm. Weatherford, Chattanooga, Tenn., 24,000 bbls. North Hampton cement under proposition A, $2.41; B, $2.03; additional lots of 5,000 bbls. under proposition A, $2.41 each; B, $2.23 each; if delivery of all of 10,000 bbls. will be accepted within 90 days, the price per bbl. may be deducted 10%.

DREDGING.—Oakland, Cal.—Board Public Works has let contract for dredging at city wharves, requiring removal of 30,000 cu. yds., to Atlantic & Pacific Dredging Co., at 15¼ cts. per cu. yd.

and the other on its mill table controllers. A decision was rendered in favor of Mr. Geo. W. Magalhaes, formerly a student of Case School of Applied Science and later a graduate of the Columbia University. Mr. Magalhaes will start for St. Louis within a few days.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

VALVES AND OTHER SPECIALTIES.—Crane Co., Chicago. Paper; 7 × 10 ins.; pp. 94; illustrated.

Pop safety valves for various classes of boilers, relief valves of several types, and an extensive line of check valves are described and illustrated here. Boiler trimmings are also included.

EXPANDED METAL CONSTRUCTION.—The Associated Expanded Metal Companies, New York City. 9 × 12 ins.; pp. 63; illustrated.

This pamphlet presents in an interesting manner the adaptability and advantages of reinforced concrete for building construction and engineering works, and shows the wide application of expanded metal as a form of reinforcement. The illustrations are particularly good and they include examples of floors, bridges, conduits, tanks and bins, and a variety of other structures. There is a brief theoretical discussion of beam design and sections on tests, fire resistance, durability, etc.

HERCULES HYDRANT.—The Holyoke Valve & Hydrant Co., Holyoke, Mass. Paper; 6 × 9 ins.; pp. 8; illustrated.

Every live water-works superintendent is on the lookout for improvements in hydrants and will be interested in this pamphlet. The hydrant, it is stated, can be opened in ten turns of the wrench. It has two valves on one stem, provided with different threads, so the upper one rises more rapidly than the lower one, throttling the water before the main valve reaches its seat, "thereby stopping all possibility of water hammer. The drip valve closes with the first turn of the hydrant on opening, and opens with the first turn on closing. The water areas are large and at the angles they are well rounded. Frost cases, it is claimed, are unnecessary. The hydrants can be supplied with the stand-pipe screwed to the bowl, so it can be removed without digging. Besides the fire hydrant the pamphlet shows a "trolley street sprinkler hydrant" and an independent nozzle valve. The latter is designed for attachment to any hydrant. The illustrations are particularly clear, except the lettering on the section of the fire hydrant.

BIDS RECEIVED AT NEW YORK, N. Y., OCTOBER 19, 1904, FOR FURNISHING, DELIVERING AND LAYING WATER MAINS IN THE BOROUGHS OF MANHATTAN AND THE BRONX.

Items.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1,500 tons of cast iron straight pipe	$25.00	$27.00	$23.75	$23.30	$23.50	$26.00	$25.50	$22.50	$25.00
60 tons, cast iron specials	62.00	60.00	55.00	53.00	65.00	60.00	57.00	50.00	58.00
10 cu. yds. rock, without blasting	.28	10.00	5.00	3.50	10.00	6 00	6.00	6.00	10.00
3,300 cu. yds. rock	.28	3.00	3.12	3.45	.35	2.00	3.00	2.50	3.75
34,400 cu. yds. earth	.28	.25	.30	.20	.35	.25	.25	.22	.40
36,200 cu. yds. fill	.28	.25	.25	.20	.35	.05	.25	.22	.15
5,300 lin. ft., 12-in. pipe	.28	.40	.25	.65	.30	.14	.35	.22	.30
66,800 lin. ft., 6-in. pipe	.15	.25	.15	.22	.22	.12	.17	.22	.18
1—36-in. x 12-in. connection	350.00	200.00	225.00	275.00	250.00	100.00	250.00	350.00	300.00
2—36-in. x 6-in. connection	260.00	150.00	175.00	200.00	190.00	100,00	200 00	250.00	145.00
2—20-in. x 6-in. connection	160.00	100.00	75.00	150.00	100.00	100.00	100.00	100.00	77.50
15—12-in. stop cocks	85.00	85.00	75.00	85.00	80.00	95 00	85.00	100.00	85.00
162—6-in. stop cocks	42.00	35.00	32.50	40.00	35.00	38.00	38.00	50.00	37.00
251 hydrants	66.00	67.50	62.50	75.00	70.00	70.00	73.00	80.00	77.00
5 cu. yds. brickwork	.01	10.00	12.50	.01	12.00	16.00	10.00	12.00	18.00
5 cu. yds. concrete	.01	4.00	5.00	5.00	8.00	8.00	5.00	6.00	5.50
400 sq. yds. asphalt	4.00	4.00	4.00	7.00	4.00	1.50	4.00	4.00	2.00
70 sq. yds of brick pavement	.01	2.50	2.00	.01	3.00	2.00	3.00	3.00	1.75
200 sq. yds. granite pavement	.01	3.50	2.50	.01	2.00	2.00	2.00	1.40	2.00
1,350 sq. yds. flagging, etc.	.01	.50	.25	.01	.50	.10	.50	.40	.30
1,350 sq. yds. macadam	.01	.75	.50	.01	.50	.50	.50	.60	.60
2,500 ft. curb and flagging	.01	.10	.10	.01	.10	.10	.10	.01	.12
30 ft. boxing	.01	6.00	5.00	7.50	7.00	3.00	10.00	5.00	6.00
500 ft. B. M. lumber	.01	30.00	30.00	.01	30.00	50.00	30.00	20.00	40.00
Total	$100,909	$119,835	$106,543	$112,471	$110,806	$96,284	$113,295	$110.899	$116,755

*RIPRAP STONE.—Tompkinsville, N. Y.—Following bids per ton were received by Engineer Third Light-House District Oct. 21 for furnishing and placing 2,000 tons riprap stone at Cedar Island Light Station: H. Toomey, Guilford, Conn., $2.18; Thos. A. Scott, New London, Conn., $1.95; E. S. Belden & Sons, Hartford, Conn., $1.83.

MACADAM PAVING.—Simsbury, Conn.—State Highway Commission has awarded contract to this town for improvement of two of the state highways of aggregate length of 5,229 ft., at the following figures: 20 cts. per sq. ft. for grading, 75 cts. per ft. for macadam surface, 95 cts. for telford base, with macadam surface, and 70 cts. per ft. for 12-in. tile drain.

*PIPE SEWERS.—Washington, D. C.—Bids were received by District Commissioners Oct. 13 for constructing pipe sewers. Price bid does not include repairing, and none of the trenching is through rock. D. E. McComb is Supt. Sewers. Bids received were as follows; (1) E. G. Guinonel, Washington; (2) Lyons Bros., Washington; (3) Jas. A. Coyle, Washington:

Bids received at Washington, D. C., Oct. 13, 1904, for Constructing Pipe Sewers.

		(1)	(2)	(3)
Earth excavation, 5,480 cu. yds.	per cu. yd.	......	$1.50	$0.80
Brickwork, 72 cu. yds.	" "	$22.00	15.00	16.00
Sewers, 12 in., 4,490 lin. ft	per lin. ft.	.88	1.45	.80
10-in., 920 lin. ft	" "	.77	1.40	.70
8-in., 300 lin ft	" "	.66	1.35	.60
Total		......	$17,503	$19,952

PORTLAND CEMENT.—Washington, D. C.—Following bids were received by Isthmian Canal Commission Oct. 20 for furnishing 2,400 bbls. American Portland cement: Illinois Steel Co., The Rookery, Chicago, Ill., $2.07 f. o. b. Colon free of all charges in 30 days, Universal Brand; Wm. Wirt Clark & Son, Baltimore, Md., Saylors cement,

INDUSTRIAL NOTES.

OUR READERS are requested to send short notes regarding new contracts that they are about to award, or have secured, for our news columns. Changes in firms' names and addresses are also wanted. "Write-ups" will not be inserted under any circumstances, as notes must contain news of interest to our readers. If our readers are in the market for any kind of machinery, tools, etc., we shall be glad to send them names of responsible firms making what they want.

ROBT. F. WENTZ ENGINEERING CO., 507 Hammond Bldg., Detroit, Mich., announces that its Toronto and Nazareth offices are discontinued.

THE TRUSSED CONCRETE STEEL CO., Detroit, Mich., has very recently issued a book entitled "Facts Concerning the Kahn Trussed Bar." This contains numerous illustrations of tests and work already completed or under way by this company.

THE ELECTRIC CONTROLLER & SUPPLY CO., Cleveland, O., recently held a contest among its draftsmen for the selection of a man to relieve Mr. Pirtle, who has been in charge of its exhibit at the Louisiana Purchase Exposition. The contest consisted of two written articles, one on the company's improved motor drive for planers

BRICK PAVING.

Webb City, Mo.

Pursuant to ordinances, adopted October 20, 1904, the undersigned will receive sealed proposals until five (5) p. m., November 7, 1904, for furnishing the labor and material and constructing the following vitrified brick pavement in Webb City, Missouri: Approximately 8,206 square yards on Allen street, 4,042 square yards on Dougherty street, 3,432 square yards on Main street, 1,749 square yards on Webb street, and 755 square yards on Church street. Separate bids are required for each street. The work is to be done according to the plans and specifications on file in the office of the City Clerk. A certified check for $250.00 must accompany each bid, which shall be forfeited to the city in the event that the successful bidder does not enter into contract with good and sufficient bond within five days from the day of the award. The work will be paid for in special tax bills issued against the lots and parcels of ground liable therefor. Bids will be opened in the presence of the council at its regular meeting, November 7, 1904. The council reserves the right to reject any and all bids.

W. E. SMITH,

17-1t City Engineer of Webb City, Mo.

FIRE ESCAPES.

Hudson, N. Y.

Sealed proposals suitably endorsed on envelope for eight fire escapes at New York State Training School for Girls, Hudson, N. Y., may be sent by mail or delivered in person up to one o'clock p. m., on the 12th day of November, 1904, to Charles H. Strong, President of the Board of Managers, at the New York State Training School for Girls, Hudson, N. Y., when the bids will be opened and read publicly.

Drawings and specifications may be consulted and blank forms of proposal obtained at the above institution, or by application to G. L. Heins, State Architect, in the Capitol at Albany, N. Y.

Contracts will be awarded to the lowest responsible and reliable bidders unless the bids exceed the amount of funds available therefor, in which case the right to reject all bids is reserved. 17-1t

OFFICE CONSTRUCTING Q. M., Prescott, Ariz., Oct. 26, 1904.—Sealed proposals in triplicate will be received here until 3 p. m., Nov. 16, 1904, and then opened, for furnishing Wall Lockers. Information in this office and offices of Chief Q. M.'s, Denver, Colo., and San Francisco, Cal., and Recruiting Officer, Los Angeles, Cal. CHAS. C. WALCUTT, JR., Capt. and Q. M. 17-3t

BRIDGE SUPERSTRUCTURE.

Calgary, Alberta, Can.

Sealed tenders, endorsed "Tenders for bridge superstructure," will be received by H. Gillies, City Clerk, Calgary, until noon on November 12th, 1904, for constructing, delivering and erecting a 180-ft. steel truss bridge in the city of Calgary, Alberta, on foundations prepared by the City.

Specifications and form of tender may be obtained from the City Engineer.

No tender necessarily accepted.

F. W. THOROLD, B. A. Sc.,
City Engineer, Calgary.

THOS. UNDERWOOD,
Chairman Public Works, Calgary.

Specifications may be seen at the office of Engineering News, 220 Broadway, New York. 16-2t

ELECTRIC LIGHTING.

Dallas, Texas, Oct. 22, 1904.

Sealed proposals are asked to be filed with me by 12 o'clock noon, December 6th, next, in the matter of lighting this city, as follows:

1. To furnish the City on a contract for five (5) years, 350 to 600 electric arc lights, moonlight and all-night schedule each.

2. Plans and specifications for a lighting plant for the city with a capacity of from 500 to 1,000 arc lights. Also separate bids for putting in the power plant, the lighting machinery, the poles and lines and the lamps, etc., therefor.

J. B. WINSLETT,

17-2t City Secretary.

GRADING.

WANTED TO SUBLET 60,000 cu. yds. nice GRADING, at good prices, near Cincinnati, Ohio. Enquire Henkel & Sullivan, 621 Main St., Cincinnati, O. 17-1t

SITUATIONS OPEN

(Received on Wednesday, too late for classification.)

WANT FOREMAN for large concrete sewer, deep cut; must be experienced and alive; location, East. Address "W. A. 17," Engineering News, New York. 17-2t

STRUCTURAL TEMPLATE MAKER wanted at once. Write immediately, giving details of experience, to SPRINGFIELD CONSTRUCTION CO., Springfield, Mass. 17-1t

WANTED.—An experienced, reliable man to erect and install Corliss engines of medium size; state age, experience and salary wanted. Address "S. A. 17," Engineering News, New York. 17-2t

For other Proposal Advertisements see pages 35, 36, 37, of Advertisements and Construction News page 210.